

STIC Search Report Biotech-Chem Library

STIC Database Tracking Number: 198954

TO: Shailendra Kumar

Location: rem-5c03/5c18

Art Unit: 1621

Monday, August 21, 2006

Case Serial Number: 10/517581

From: Usha Shrestha

Location: Biotech-Chem Library

REM-1A64

Phone: (571)272-3519

Usha.shrestha@uspto.gov

Search Notes

Examiner Kumar,

See attached results.

If you have any questions about this search feel free to contact me at any time.

Thank you for using STIC search services!

Usha Shrestha Technical Information Specialist STIC Biotech/Chem Library (571)272-3519



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Searcher Prep & Review Time: _

Online Time: _

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Scientific and Technical Information Center

	SEARCH RI	EQUEST FORM	
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Title of Invention: Mw Inventors (please provide full nar	ide linker be	roxisome proliferat	er activated neces
Inventors (please provide full nar	nes): <u>Kafael</u>	Ferritto Cres	No etro-1.
Earliest Priority Date:	5/19/02		
Search Topic: Please provide a detailed statement of elected species or structures, keywords Define any terms that may have a spe	, synonyms, acronyms, and regi	stry numbers, and combine with the (concept or utility of the invention.
For Sequence Searches Only Pleas appropriate serial number.	e include all pertinent informati	on (parent, child, divisional, or issue	d patent numbers) along with the
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Fulltext

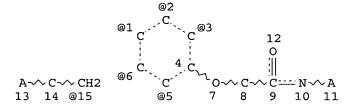
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             6 S L16 AND PEROXISOM?
             5 S L10
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            10 S L20 AND PEROXISOM?
L22
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L23
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            15 S L17 OR L23
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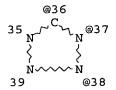
L5



VPA 15-3/2/1/5/6 U
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NSPEC IS RC AT 13
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RSPEC I NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE L8 STR



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GRAPH ATTRIBUTES:

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NUMBER OF NODES IS 38

STEREO ATTRIBUTES: NONE

DEFAULT ECLEVEL IS LIMITED

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L33 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:2837 HCAPLUS

DOCUMENT NUMBER:

140:59411

TITLE:

Preparation of phenoxyalkanamides as amide linker peroxisome proliferator activated recentor agonists for treating and/or

receptor agonists for treating and/or preventing diabetes mellitus and syndrome X

INVENTOR(S):

Ferritto Crespo, Rafael; Martin, Jose Alfredo;

Martin-Ortega, Finger Maria Dolores; Rojo Garcia, Isabel; Shen, Quanrong; Warshawsky,

Alan M.; Xu, Yanping

PATENT ASSIGNEE(S):

Eli Lilly and Company, USA PCT Int. Appl., 168 pp.

SOURCE: PCT In

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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					2002
					0619
				WO 2003-US16207	W
					2003
					0611

OTHER SOURCE(S):

MARPAT 140:59411

GI

$$OCR^{5}R^{6}C(O)NR^{1}R^{2}$$
 I

Me

CH

CO

Me

CH

O

Me

II

AB The present invention is directed to phenoxyalkanamides (shown as I; variables defined below; e.g. II), compns., and their use as peroxisome proliferator activated receptor agonists for treating and/or preventing diabetes mellitus and syndrome X. The binding and cotransfection efficacy values found for compds. of this invention that are useful for modulating a PPARα receptor are about <100 nM and >50%, resp. Although the methods of preparation are not claimed, .apprx.140 example prepns. of I are included. For example, II was prepared in 3 steps starting from

(2S) -2-ethoxy-3-(4-hydroxyphenyl)propionic acid Me ester, (2S) -2-hydroxypropionic acid benzyl ester and involving intermediates (2S)-3-[4-[[(1R)-1-[(benzyloxy)carbonyl]ethyl]oxy]ph enyl]-2-ethoxypropionic acid Et ester and (2S)-3-[4-[((1R)-1carboxyethyl)oxy]phenyl]-2-ethoxypropionic acid. For I: R1 = H, C1-C8 alkyl, C3-C6 cycloalkyl, aryl-C0-4-alkyl, heteroaryl-C0-4-alkyl, aminoC1-C4alkyl, C3-C6 cycloalkylaryl-C0-2alkyl, arylheteroC1-C8alkyl, -CHC(0)C1-C4 alkoxy, C0-4-alkyl-C(0) heteroC1-C8alkyl, and -CH2C(0)-R15R16. R2 = C1-C8 alkyl, C3-C6 cycloalkyl, aryl-C0-C4-alkyl, heteroaryl-C0-C4-alkyl, heteroC1-C6cycloalkylaryl, heteroC1-C6cycloalkylarylC1-C4alkyl, aminoC1-C4alkyl, C3-C6 cycloalkylaryl-C0-C2-alkyl, arylheteroC1-C8alkyl, C0-C4-alkyl-C(0)heteroC1-C8alkyl, -CH(C(0)OCH3)benzyl, and -CH2C(0)R15''R16''. R1 and R2 together may form a heterocyclic ring which heterocyclic ring is (un) substituted with 1-3 substituents R1' and which heterocyclic ring is optionally fused with an aryl; E = C(R3)(R4)A, (CH2) nCOOR13, aryl-C0-C4-alkyl, thio-C1-C4-alkyl, thioaryl, arylC1-C4alkoxy, C1-C4alkoxy C1-C4alkyl, aminoaryl, and aminoC1-C4alkyl. R5 and R6 = H, C1-C8 alkyl, aryl-C0-C4-alkyl, heteroaryl-C0-C4-alkyl, C3-C6 cycloalkyl, aryl-C0-C2-alkyl, C3-C6 cycloalkyl-C0-2-alkyl, and -CH2C(O)R17R18. 638190-57-5P, 2-Ethoxy-3-[4-[1-[[2-(4phenoxyphenyl)ethyl]carbamoyl]propoxy]phenyl]propionic acid (drug candidate, single diastereomer; preparation of phenoxyalkanamides as amide linker peroxisome proliferator activated receptor agonists for treating and/or preventing diabetes mellitus and syndrome X)

RN 638190-57-5 HCAPLUS

IT

CN Benzenepropanoic acid, α -ethoxy-4-[1-[[[2-(4-phenoxyphenyl)ethyl]amino]carbonyl]propoxy]- (9CI) (CA INDEX NAME)

OEt
$$HO_2C-CH-CH_2$$
 Et O OPh OPh OPh OPh OPh OPh OPh OPh OPh OPh

IC ICM C07C235-20

ICS C07C235-22; C07C235-24; C07D295-18; C07C235-26; C07C235-34; C07C233-18; C07C069-734; C07C323-41; C07D333-20; C07D211-32; C07D217-06; C07D317-58; C07D277-82; C07D213-40; C07D285-12; C07D277-46; A61K031-16; A61K031-425; A61K031-495

CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

Section cross-reference(s): 1, 63

IT 638190-57-5P, 2-Ethoxy-3-[4-[1-[[2-(4-phenoxyphenyl)ethyl]carbamoyl]propoxy]phenyl]propionic acid

(drug candidate, single diastereomer; preparation of phenoxyalkanamides as amide linker peroxisome proliferator activated receptor agonists for treating and/or preventing diabetes mellitus and syndrome X)

IT 638190-05-3P, 2-Methoxy-3-[3-[(4-

phenoxyphenylcarbamoyl)methoxylphenyllpropionic acid
 (drug candidate, single enantiomer; preparation of
 phenoxyalkanamides as amide linker peroxisome proliferator

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activated receptor agonists for treating and/or preventing
       diabetes mellitus and syndrome X)
IT
    638189-66-9P, (2S)-2-Ethoxy-3-[4-[[(1R)-1-[[2-(4-
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    638189-69-2P, (2S)-2-Ethoxy-3-[4-[[(1R)-1-[[2-(4-
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    638189-73-8P, (2S)-2-Ethoxy-3-[4-[[(1R)-1-(3-fluoro-5-
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    acid 638189-80-7P, (2S)-2-Ethoxy-3-[4-[[(1R)-1-
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    Butylphenyl)ethyl]carbamoyl]ethyl]oxy]phenyl]-2-ethoxypropionic
    acid 638189-83-0P, (2S)-2-Ethoxy-3-[4-[[(1R)-1-(4-
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    638189-84-1P, (2S)-2-Ethoxy-3-[4-[[(1R)-1-(4-
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    638189-85-2P, (2S)-2-Ethoxy-3-[4-[[(1R)-1-[[2-(thiophen-2-
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    (2S)-3-[4-[2-[4-(4-Chlorobenzoyl)piperidin-1-yl]-2-
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    (2S) -2-Methoxy-3-[4-[[[(1R)-1-(methoxycarbonyl)-2-
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638189-98-7P, (2S)-3-[4-[[(4-
Chlorophenyl)phenylmethyl]carbamoyl]methoxy]phenyl]-2-
methoxypropionic acid 638189-99-8P 638190-00-8P
(2S)-3-[4-[(3,3-Diphenylpropylcarbamoyl)methoxy]phenyl]-2-
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(2S) -3-[4-[[Benzyl[2-(ethoxycarbonyl)ethyl]carbamoyl]methoxy]pheny
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(2S) -2-Methoxy-3-[4-[(4-phenoxyphenylcarbamoyl)methoxy]phenyl]prop
ionic acid 638190-06-4P, (2S)-2-Methoxy-3-[4-[1-methyl-1-
[[2-(4-phenoxyphenyl)ethyl]carbamoyl]ethoxy]phenyl]propionic acid
638190-07-5P, (2S)-3-[4-[1-[[2-(2-
Ethoxyphenyl)ethyl]carbamoyl]-1-methylethoxy]phenyl]-2-
methoxypropionic acid 638190-08-6P, 2-Methoxy-2-methyl-3-
[4-[[2-(4-phenoxyphenyl)ethyl]carbamoyl]methoxy]phenyl]propionic
acid 638190-10-0P, (2S)-2-Methoxy-3-[4-[1-methyl-1-[[2-
(3-trifluoromethylphenyl)ethyl]carbamoyl]ethoxy]phenyl]propionic
acid 638190-11-1P, (2S)-2-Methoxy-3-[4-[1-methyl-1-(3-
trifluoromethylbenzylcarbamoyl)ethoxy]phenyl]propionic acid
638190-12-2P 638190-13-3P, (2S)-3-[4-[1-
[[(Biphenyl-3-yl)methyl]carbamoyl]-1-methylethoxy]phenyl]-2-
methoxypropionic acid 638190-14-4P, (2S)-3-[4-[1-[[2-
(2,5-Dimethoxyphenyl)ethyl]carbamoyl]-1-methylethoxy]phenyl]-2-
methoxypropionic acid 638190-15-5P, (2S)-3-[4-[1-[[2-(2-
Fluorophenyl)ethyl]carbamoyl]-1-methylethoxy]phenyl]-2-
methoxypropionic acid 638190-16-6P, (2S)-2-Ethoxy-3-[4-
[1-methyl-1-[[2-(3-trifluoromethylphenyl)ethyl]carbamoyl]ethoxy]ph
enyl]propionic acid 638190-19-9P, (2S)-2-Ethoxy-3-[4-[1-
(3-fluoro-5-trifluoromethylbenzylcarbamoyl)-1-
methylethoxy]phenyl]propionic acid 638190-20-2P,
(2S) -3-[4-[1-[[2-(2-Chlorophenyl)ethyl]carbamoyl]-1-
methylethoxy]phenyl]-2-ethoxypropionic acid 638190-21-3P
, (2S)-3-[4-[1-[[(Biphenyl-3-yl)methyl]carbamoyl]-1-
methylethoxy]phenyl]-2-ethoxypropionic acid 638190-22-4P
, (2S)-3-[4-[1-[[2-(3-Chlorophenyl)ethyl]carbamoyl]-1-
methylethoxy]phenyl]-2-ethoxypropionic acid 638190-23-5P
, (2S) - 3 - [4 - [1 - [[2 - (2, 5 - Dimethoxyphenyl)] - 1 - [2 - (2, 5 - Dimethoxyphenyl)] - 1 - [2 - (2, 5 - Dimethoxyphenyl)] - 1 - [3 - (2, 5 - Dimethoxyphenyl)] - 1 - [3 - (2, 5 - Dimethoxyphenyl)] - 1 - [3 - (2, 5 - Dimethoxyphenyl)] - 1 - [3 - (2, 5 - Dimethoxyphenyl)] - [3 - (2, 5 - Dim
methylethoxy]phenyl]-2-ethoxypropionic acid 638190-24-6P
, (2S)-2-Ethoxy-3-[4-[1-[[2-(2-fluorophenyl)ethyl]carbamoyl]-1-
methylethoxy]phenyl]propionic acid 638190-27-9P,
(2S) -3 - [3 - [1 - [[2 - (4 - Ethylphenyl) ethyl] carbamoyl] -1 -
methylethoxy]phenyl]-2-methoxypropionic acid 638190-28-0P
   (2S)-2-Methoxy-3-[3-[1-methyl-1-[[2-(4-
phenoxyphenyl)ethyl]carbamoyl]ethoxy]phenyl]propionic acid
638190-29-1P, (2S)-3-[3-[1-(3-Fluoro-5-
trifluoromethylbenzylcarbamoyl)-1-methylethoxy]phenyl]-2-
methoxypropionic acid 638190-30-4P, (2S)-3-[3-[1-
[[(Biphenyl-3-yl)methyl]carbamoyl]-1-methylethoxy]phenyl]-2-
methoxypropionic acid 638190-31-5P, (2S)-3-[3-[1-[[2-(3-
Chlorophenyl)ethyl]carbamoyl]-1-methylethoxy]phenyl]-2-
methoxypropionic acid 638190-32-6P, (2S)-2-Methoxy-3-[4-
[[((1S)-1-phenylethyl)carbamoyl]methoxy]phenyl]propionic acid
638190-33-7P, (2S)-3-[3-[1-[[2-(2,4-
Dichlorophenyl)ethyl]carbamoyl]-1-methylethoxy]phenyl]-2-
methoxypropionic acid 638190-34-8P, (2S)-3-[3-[1-[[2-
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(2,6-Dichlorophenyl)ethyl]carbamoyl]-1-methylethoxy]phenyl]-2-
methoxypropionic acid 638190-35-9P, (2S)-3-[3-(1-
Heptylcarbamoyl-1-methylethoxy)phenyl]-2-methoxypropionic acid
638190-36-0P, (2S)-3-[4-[1-[[2-(2,4-
Dichlorophenyl)ethyl]carbamoyl]-1-methylethoxy]phenyl]-2-
methoxypropionic acid 638190-37-1P, (2S)-3-[4-[1-[[2-
(2,4-Dichlorophenyl)ethyl]carbamoyl]-1-methylethoxy]phenyl]-2-
ethoxypropionic acid 638190-38-2P, (2S)-3-[4-[1-[[2-(2,6-
Dichlorophenyl)ethyl]carbamoyl]-1-methylethoxy]phenyl]-2-
ethoxypropionic acid 638190-39-3P, (2S)-2-Ethoxy-3-[4-[1-
[[2-(4-ethylphenyl)ethyl]carbamoyl]-1-
methylethoxy]phenyl]propionic acid 638190-40-6P,
(2S) - 2 - Ethoxy - 3 - [4 - [1 - [[2 - (2 - ethoxyphenyl) ethyl] carbamoyl] - 1 -
methylethoxy]phenyl]propionic acid 638190-41-7P,
(2S) -2-Ethoxy-3-[4-(1-heptylcarbamoyl-1-
methylethoxy)phenyl]propionic acid 638190-46-2P,
(2S) - 3 - [4 - [[(1S) - 1 - [[2 - (2 - Chlorophenyl) ethyl] carbamoyl] ethyl] oxy]p
henyl]-2-ethoxypropionic acid 638190-47-3P,
(2S) -2-Ethoxy-3-[4-[[(1S)-1-(hexylcarbamoyl)ethyl]oxy]phenyl]propi
onic acid 638190-48-4P, (2S)-2-Ethoxy-3-[4-[[(1S)-1-(3-
trifluoromethylbenzylcarbamoyl)ethyl]oxy]phenyl]propionic acid
638190-49-5P, (2S)-2-Ethoxy-3-[4-[[(1S)-1-(5-fluoro-3-
trifluoromethylbenzylcarbamoyl)ethyl]oxy]phenyl]propionic acid
638190-50-8P, (2S)-2-Ethoxy-3-[4-[[(1S)-1-(3-
phenylbenzylcarbamoyl)ethyl]oxy]phenyl]propionic acid
638190-51-9P, (2S)-2-Ethoxy-3-[4-[[(1S)-1-[[2-(4-
phenoxyphenyl)ethyl]carbamoyl]ethyl]oxy]phenyl]propionic acid
638190-52-0P, (2S)-2-Ethoxy-3-[4-[[(1S)-1-[[2-(3-
trifluoromethylphenyl)ethyl]carbamoyl]ethyl]oxy]phenyl]propionic
acid 638190-53-1P, (2S)-3-[4-[[(1S)-1-[[2-(2,6-
Dichlorophenyl)ethyl]carbamoyl]ethyl]oxy]phenyl]-2-ethoxypropionic
acid 638190-54-2P, (2S)-2-Ethoxy-3-[4-[[(1S)-1-[[2-(4-
ethylphenyl)ethyl]carbamoyl]ethyl]oxy]phenyl]propionic acid
638190-55-3P, (2S)-2-Ethoxy-3-[4-[1-[[2-(4-
ethylphenyl)ethyl]carbamoyl]propoxy]phenyl]propionic acid
638190-56-4P, (2S)-2-Ethoxy-3-[4-[1-
(hexylcarbamoyl)propoxy]phenyl]propionic acid 638190-58-6P
  (2S)-3-[4-[(1R)-Cyclohexyl[[2-(4-ethylphenyl)ethyl]carbamoyl]me
thyl]oxy]phenyl]-2-ethoxypropionic acid 638190-59-7P,
(2S) - 2 - Ethoxy - 3 - [4 - [[(1R) - 1 - [[2 - (4 - ethylphenyl)ethyl]carbamoyl] - 2 -
phenylethyl]oxy]phenyl]propionic acid 638190-61-1P,
(2S) -2-Methyl-2-phenoxy-3-[4-[1-[[2-(4-
phenoxyphenyl)ethyl]carbamoyl]methoxy]phenyl]propionic acid
638190-63-3P, (2S)-2-Phenoxy-2-[4-[[[2-(4-
phenoxyphenyl)ethyl]carbamoyl]methoxy]benzyl]butyric acid
638190-65-5P, (2S)-2-Methyl-3-[4-[[[2-(4-
phenoxyphenyl)ethyl]carbamoyl]methoxy]phenyl]-2-(4-
trifluoromethoxyphenoxy)propionic acid 638190-67-7P,
(2S) -2-(4-Fluorophenoxy) -2-methyl-3-[4-[[[2-(4-
phenoxyphenyl)ethyl]carbamoyl]methoxy]phenyl]propionic acid
638190-69-9P, (2S)-3-[4-[[[(Biphenyl-4-
yl)methyl]carbamoyl]methoxy]phenyl]-2-methoxypropionic acid
638190-70-2P, (2S)-2-Methoxy-3-[4-[[methyl](naphthalen-1-
yl)methyl]carbamoyl]methoxy]phenyl]propionic acid
                                                     638190-71-3P,
(2S) -3-[4-[2-(4-Benzhydrylpiperazin-1-yl)-2-oxoethoxy]phenyl]-2-
methoxypropionic acid
                       638190-72-4P, (2S)-3-[4-[2-[4-[Bis(4-
fluorophenyl)methyl]piperazin-1-yl]-2-oxoethoxy]phenyl]-2-
methoxypropionic acid 638190-73-5P, (2S)-2-Methoxy-3-[4-
[[[2-(4-phenoxyphenyl)ethyl]carbamoyl]methoxy]phenyl]propionic
       638190-74-6P, (2S)-3-[4-[2-(3,4-Dihydro-1H-isoquinolin-2-
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yl)-2-oxoethoxy]phenyl]-2-methoxypropionic acid
638190-75-7P, (2S)-3-[4-[[(Benzyl) (phenethyl) carbamoyl] met
hoxy]phenyl]-2-methoxypropionic acid
                                       638190-76-8P,
(2S) -3-[4-[2-[4-(4-Fluorophenyl)piperazin-1-yl]-2-
oxoethoxy]phenyl]-2-methoxypropionic acid
                                           638190-77-9P,
(2S) -2-Methoxy-3-[4-[[4-(4-chlorophenyl)-3-methylpiperazin-1-
yl]carbonyl]methoxy]phenyl]propionic acid 638190-78-0P,
(2S) - 3 - [4 - [2 - [4 - (3 - Chlorophenyl) piperazin - 1 - yl] - 2 -
oxoethoxy]phenyl]-2-methoxypropionic acid 638190-79-1P,
(2S) -3-[4-[2-[4-(4-Chlorobenzyl)piperazin-1-yl]-2-
oxoethoxy]phenyl]-2-methoxypropionic acid
                                           638190-80-4P,
(2S) -3-[4-[2-[4-(2-Fluorophenyl)piperazin-1-yl]-2-
oxoethoxy]phenyl]-2-methoxypropionic acid 638190-81-5P,
(2S) - 3 - [4 - [[[(Benzo[1,3]dioxol-5-yl)methyl]carbamoyl]methoxy]pheny
1]-2-methoxypropionic acid 638190-82-6P,
(2S) -3-[4-[[[2-(4-Bromophenyl)ethyl]carbamoyl]methoxy]phenyl]-2-
methoxypropionic acid 638190-83-7P, (2S)-2-Methoxy-3-[4-
[[[(naphthalen-1-y1)methy1]carbamoy1]methoxy]pheny1]propionic acid
638190-84-8P, (2S)-3-[4-[[[2-[(2,6-
Dichlorobenzyl)sulfanyl]ethyl]carbamoyl]methoxy]phenyl]-2-
methoxypropionic acid 638190-85-9P, (2S)-3-[4-
[[Benzyl((1R)-1-phenylethyl)carbamoyl]methoxy]phenyl]-2-
methoxypropionic acid
                        638190-86-0P, (2S)-3-[4-[2-[4-(4-
Acetylphenyl)piperazin-1-yl]-2-oxoethoxy]phenyl]-2-
methoxypropionic acid
                      638190-87-1P, (2S)-2-Methoxy-3-[4-[2-oxo-2-
[4-(p-tolyl)piperazin-1-yl]ethoxy]phenyl]propionic acid
638190-88-2P, (2S)-3-[4-[[Ethyl(2-
fluorobenzyl)carbamoyl]methoxy]phenyl]-2-methoxypropionic acid
638190-89-3P, (2S)-3-[4-[[Ethyl(3-
methylbenzyl)carbamoyl]methoxy]phenyl]-2-methoxypropionic acid
638190-90-6P, (2S)-3-[4-[2-[4-(4-Fluorobenzyl)piperazin-1-yl]-2-
oxoethoxy]phenyl]-2-methoxypropionic acid 638190-91-7P,
(2S) -3-[4-[[(6-Fluorobenzothiazol-2-yl)carbamoyl]methoxy]phenyl]-2-
methoxypropionic acid 638190-92-8P, (2S)-3-[4-[[[2-
(Ethyl-m-tolylamino)ethyl]carbamoyl]methoxy]phenyl]-2-
methoxypropionic acid 638190-93-9P, (2S)-2-Methoxy-3-[4-
[[[2-(pyridin-2-yl)ethyl]carbamoyl]methoxy]phenyl]propionic acid
638190-94-0P, (2S)-2-Methoxy-3-[4-[[[2-(pyridin-3-
yl)ethyl]carbamoyl]methoxy]phenyl]propionic acid
638190-95-1P, (2S)-3-[4-[[(trans-4-tert-
Butylcyclohexyl)carbamoyl]methoxy]phenyl]-2-methoxypropionic acid
638190-96-2P, (2S)-3-[4-[[(cis-4-tert-
Butylcyclohexyl)carbamoyl]methoxy]phenyl]-2-methoxypropionic acid
638190-97-3P, (2S)-3-[4-[(Cyclobutylcarbamoyl)methoxy]phen
yl]-2-methoxypropionic acid 638190-98-4P,
(2S) -3-[4-[(1,3-Dimethylbutylcarbamoyl)methoxy]phenyl]-2-
methoxypropionic acid 638190-99-5P, (2S)-2-Methoxy-3-[4-
[(1-methylhexylcarbamoyl)methoxy]phenyl]propionic acid
638191-00-1P, (2S)-2-Methoxy-3-[4-[(1-
methylbutylcarbamoyl)methoxy]phenyl]propionic acid
638191-01-2P, (2S)-2-Methoxy-3-[4-[(3-
methylbutylcarbamoyl)methoxy]phenyl]propionic acid
638191-02-3P, (2S)-3-[4-[(Cyclopentylcarbamoyl)methoxy]phe
nyl]-2-methoxypropionic acid 638191-03-4P,
(2S) -2-Methoxy-3-[4-[[(1-methyl-3-phenylpropyl)carbamoyl]methoxy]p
henyl]propionic acid 638191-04-5P, (2S)-3-[4-
[(2,2,3,3,4,4,4-Heptafluorobutylcarbamoyl)methoxy]phenyl]-2-
methoxypropionic acid 638191-05-6P, (2S)-3-[4-[[(5-tert-
Butyl-[1,3,4]thiadiazol-2-yl)carbamoyl]methoxy]phenyl]-2-
methoxypropionic acid 638191-06-7P, (2S)-3-[4-[[(4-tert-
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4.17.

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Butylthiazol-2-yl)carbamoyl]methoxy]phenyl]-2-methoxypropionic
acid 638191-07-8P, (2S)-3-[4-[[(5-Cyclopropyl-
[1,3,4]thiadiazol-2-yl)carbamoyl]methoxy]phenyl]-2-
methoxypropionic acid 638191-08-9P, (2S)-3-[4-
[(Hexylcarbamoyl)methoxy]phenyl]-2-methoxypropionic acid
638191-09-0P, (2S)-3-[4-[(Heptylcarbamoyl)methoxy]phenyl]-
2-methoxypropionic acid 638191-10-3P,
(2S) -3-[4-[(3,3-Dimethylbutylcarbamoyl)methoxy]phenyl]-2-
methoxypropionic acid 638191-11-4P, 3-[3-[[(cis-4-tert-
Butylcyclohexyl)carbamoyl]methoxy]phenyl]-2-methoxypropionic acid
638191-12-5P, 3-[3-[[(trans-4-tert-
Butylcyclohexyl)carbamoyl]methoxy]phenyl]-2-methoxypropionic acid
638191-13-6P, 3-[4-[(Heptylcarbamoyl)methoxy]phenyl]-2-
methoxy-2-methylpropionic acid 638191-17-0P,
2-Ethoxy-3-[4-[1-(3-trifluoromethylbenzylcarbamoyl)ethoxy]phenyl]p
ropionic acid 638191-18-1P, 2-Ethoxy-3-[4-[1-(5-fluoro-3-
trifluoromethylbenzylcarbamoyl)ethoxy]phenyl]propionic acid
638191-19-2P, 2-Ethoxy-3-[4-[1-[(3-
phenylbenzyl)carbamoyl]ethoxy]phenyl]propionic acid
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phenoxyphenyl)ethyl]carbamoyl]ethoxy]phenyl]propionic acid
638191-21-6P, 2-Ethoxy-3-[4-[1-[[2-(3-
trifluoromethylphenyl)ethyl]carbamoyl]ethoxy]phenyl]propionic acid
638191-22-7P, 3-[4-[1-[[2-(2,6-
Dichlorophenyl)ethyl]carbamoyl]ethoxy]phenyl]-2-ethoxypropionic
acid 638191-23-8P, 2-Ethoxy-3-[4-[1-[[2-(4-
ethylphenyl)ethyl]carbamoyl]ethoxy]phenyl]propionic acid
638191-24-9P, 3-[4-[Cyclohexyl[[2-(4-
ethylphenyl)ethyl]carbamoyl]methoxy]phenyl]-2-ethoxypropionic acid
638191-25-0P, 2-Ethoxy-3-[4-[1-[[2-(4-
ethylphenyl)ethyl]carbamoyl]-2-phenylethoxy]phenyl]propionic acid
639010-29-0P, (2S)-3-[4-[[(1R)-1-(4-tert-
Butylcyclohexylcarbamoyl)ethyl]oxy]phenyl]-2-ethoxypropionic acid
639010-30-3P, (2S)-3-[4-[1-(4-tert-
Butylcyclohexylcarbamoyl)-1-methylethoxy]phenyl]-2-
methoxypropionic acid 639010-31-4P, (2S)-3-[3-[1-(4-tert-
Butylcyclohexylcarbamoyl) -1-methylethoxy]phenyl] -2-
methoxypropionic acid 639010-32-5P, (2S)-3-[4-[[(1S)-1-
(4-tert-Butylcyclohexylcarbamoyl)ethyl]oxy]phenyl]-2-
ethoxypropionic acid
   (drug candidate; preparation of phenoxyalkanamides as amide linker
   peroxisome proliferator activated receptor agonists for
   treating and/or preventing diabetes mellitus and syndrome X)
23508-35-2P, (2S)-3-(4-Hydroxyphenyl)-2-hydroxypropionic acid 156335-14-7P, Methyl 3-(4-hydroxyphenyl)-2-methoxypropanoate
162919-37-1P, (2S)-3-[4-(Benzyloxy)phenyl]-2-hydroxypropionic acid 222835-03-2P, 3-[4-(Benzyloxy)phenyl]-2-ethoxyacrylic acid ethyl
        222835-04-3P, 3-[4-(Benzyloxy)phenyl]-2-ethoxypropionic
                   325793-76-8P, Propyl (2S)-3-(4-hydroxyphenyl)-
acid methyl ester
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2-ethoxypropionate
ethoxy-3-hydroxypropionic acid ethyl ester
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(2S)-3-(4-Hydroxyphenyl)-2-methoxypropionic acid ethyl ester
               477982-28-8P, 3-(4-Hydroxyphenyl)-2-
477980-43-1P
                       481072-40-6P, Propyl (2S)-3-[4-
methoxypropanoic acid
(benzyloxy) phenyl] -2-hydroxypropionate
                                          638189-56-7P
638189-58-9P, (2S)-3-[4-[(tert-Butoxycarbonyl)methoxy]phenyl]-2-
methoxypropionic acid ethyl ester 638189-59-0P,
(2S)-3-[4-(Carboxymethoxy)phenyl]-2-methoxypropionic acid ethyl
        638189-61-4P, 3-[3-[(tert-Butoxycarbonyl)methoxy]phenyl]-2-
methoxypropionic acid methyl ester 638189-62-5P,
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3-[3-(Carboxymethoxy)phenyl]-2-methoxypropionic acid methyl ester
    638189-63-6P, (2S)-2-Methoxy-3-[4-[(1-methyl-1-
    octylcarbamoylethyl)oxy]phenyl]propionic acid
                                                     638189-64-7P,
     (2S)-3-[4-[1-(tert-Butoxycarbonyl)-1-methylethoxy]phenyl]-2-
    methoxypropionic acid ethyl ester 638189-65-8P
                                                        638189-67-0P,
     (2S) - 3 - [4 - [(1R) - 1 - [(Benzyloxy) carbonyl] ethyl] oxy] phenyl] - 2 -
    ethoxypropionic acid ethyl ester 638189-68-1P,
     (2S) -3-[4-[((1R)-1-Carboxyethyl)oxy]phenyl]-2-ethoxypropionic acid
    ethyl ester
                   638190-17-7P, (2S)-3-[4-(1-Carboxy-1-
    methylethoxy)phenyl]-2-ethoxypropionic acid ethyl ester
    638190-18-8P, (2S)-3-[4-[1-(tert-Butoxycarbonyl)-1-
    methylethoxy]phenyl]-2-ethoxypropionic acid ethyl ester
     638190-25-7P, (2S)-3-[3-[1-(tert-Butoxycarbonyl)-1-
    methylethoxy]phenyl]-2-methoxypropionic acid methyl ester
     638190-26-8P, (2S)-3-[3-(1-Carboxy-1-methylethoxy)phenyl]-2-
    methoxypropionic acid methyl ester 638190-42-8P,
     (2S) -3-[4-[((1R)-1-Carboxyethyl)oxy]phenyl]-2-ethoxypropionic acid
     638190-43-9P
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    Butoxycarbonyl)ethyl]oxy]phenyl]-2-ethoxypropionic acid ethyl
    ester 638190-45-1P, (2S)-3-[4-[((1S)-1-Carboxyethyl)oxy]phenyl]-
     2-ethoxypropionic acid ethyl ester 638190-62-2P
     638191-15-8P, Propyl (2S)-3-[4-(benzyloxy)phenyl]-2-
    ethoxypropionate
                      638191-16-9P, Propyl (2S)-3-[4-((1R)-1-
     carboxyethyl)phenyl]-2-ethoxypropionate
        (preparation of phenoxyalkanamides as amide linker peroxisome
        proliferator activated receptor agonists for treating and/or
       preventing diabetes mellitus and syndrome X)
     638189-60-3P, 3-[3-[[[2-(4-Ethylphenyl)ethyl]carbamoyl]met
     hoxy]phenyl]-2-methoxypropionic acid
        (single enantiomer; preparation of phenoxyalkanamides as amide
        linker peroxisome proliferator activated receptor agonists for
        treating and/or preventing diabetes mellitus and syndrome X)
                               THERE ARE 9 CITED REFERENCES AVAILABLE
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ACCESSION NUMBER: 2005:1335635 HCAPLUS

144:69628 DOCUMENT NUMBER:

Preparation of phenoxyacetamide derivatives as TITLE:

modulators of peroxisome

Patent

proliferator-activated receptors (PPAR)

Alstermark, Eva-Lotte Lindstedt; Olsson, Anna INVENTOR(S):

Christina; Li, Lanna

PATENT ASSIGNEE(S): Swed.

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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OTHER SOURCE(S):

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$$R^{5}$$
 R^{6}
 X
 Y
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AB The phenyl-, phenoxy-, or phenylthioalkanamidetitle compds., (in particular phenoxyacetamide derivs.) (I) [A is situated in the ortho, meta or para position and represents CR3R4CR1R2COR, CR3:CR1COR (wherein R = H, alkyl, (un)substituted HO or NH2; R1 = alkyl, aryl, alkenyl, alkynyl, or when A is CR3R4CR1R2COR, R1 can also be cyano, (un) substituted HO, SH, OCONH2, SO2NH2, CO2H, etc.; R2 = H, halogen, alkyl, aryl, alkylaryl; R3, R4 = H, alkyl, aryl, alkylaryl); Y = O, S, a single bond; n = an integer of 1-4; X = alkyl; R5, R6 = H, each (un) substituted C1-13 alkyl, C2-10 alkenyl, or C2-10 alkynyl; or R5, R6 = each (un)substituted C3-8 cycloalkyl, C3-C8 cycloalkenyl, aryl, heterocyclyl, or heteroaryl; or R5 and R6 together with the nitrogen atom to which they are attached form a single or a fused heterocyclic system] are prepared These compds. are useful in treating clin. conditions including lipid disorders (dyslipidemias) whether or not associated with insulin resistance, and other manifestations of the metabolic syndrome. Thus, a solution of 0.598 g N-butyl-N-[2-fluoro-4-(trifluoromethyl)benzyl]amine and 0.593 g [4-((2S)-2,3-diethoxy-3oxopropyl)phenoxy]acetic acid in 20 mL CH2Cl2 was treated with 0.80 mL N, N-diisopropylethylamine and 0.674 g O-(benzotriazol-1yl)-N,N,N',N'-tetramethyluronium tetrafluoroborate and the reaction mixture was stirred at room temperature overnight to give, after workup and silica gel chromatog., 74% Et (2S)-3-[4-[2-[butyl[2fluoro-4-(trifluoromethyl)benzyl]amino]-2-oxoethoxy]phenyl]-2ethoxypropanoate (II). A solution of 0.748 g II in 70 mL MeCN was treated with 35 mL 0.10 M LiOH and the reaction mixture was stirred at room temperature overnight, neutralized with 5% HCl, concentrated, acidified with 5% HCl, and extracted with EtOAc to give 97% (2S) -3-[4-[2-[butyl[2-fluoro-4-(trifluoromethyl)benzyl]amino]-2oxoethoxy]phenyl]-2-ethoxypropanoic acid (III). III showed EC50 of 0.001 μ mol/L for human PPAr α . **549501-66-8P**, (2S)-3-[4-[2-[(Cyclohexylmethyl) (heptyl) amin o]-2-oxoethoxy]phenyl]-2-ethoxypropanoic acid 549501-72-6P , (2S) -3-[4-[2-[(2,4-Difluorobenzyl)(heptyl)amino]-2oxoethoxy]phenyl]-2-ethoxypropanoic acid 549532-33-4P, (2S) -3-[4-[2-[Benzyl(hexyl)amino]-2-oxoethoxy]phenyl]-2ethoxypropanoic acid 549532-35-6P, (2S)-2-Ethoxy-3-[4-[2-[hexyl(2-phenylethyl)amino]-2-oxoethoxy]phenyl]propanoic acid

638189-90-9P 638189-91-0P 638189-93-2P 638189-96-5P 638189-98-7P 638189-99-8P

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638190-00-8P, (2S)-4-[2-[(3,3-Diphenylpropyl)amino]-2-
oxoethoxy]-\alpha-methoxybenzenepropanoic acid
638190-01-9P, (2S)-4-[2-[(3-Ethoxy-3-
oxopropyl) (phenylmethyl) amino] -2-oxoethoxy] -\alpha-
methoxybenzenepropanoic acid 638190-02-0P
638190-03-1P, (2S) -\alpha-Methoxy-4-[2-[[2-(4-
methoxyphenoxy)ethyl]amino]-2-oxoethoxy]benzenepropanoic acid
638190-04-2P 638190-05-3P 638190-08-6P
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638190-63-3P 638190-65-5P 638190-67-7P
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y1) methy1] amino] -2-oxoethoxy] -\alpha-methoxybenzenepropanoic acid
638190-70-2P, (2S)-\alpha-Methoxy-4-[2-[methyl](1-
naphthalenyl) methyl] amino] -2-oxoethoxy] benzenepropanoic acid
638190-73-5P 638190-75-7P 638190-81-5P
, (2S)-4-[2-[(1,3-Benzodioxol-5-ylmethyl)amino]-2-oxoethoxy]-
\alpha-methoxybenzenepropanoic acid 638190-82-6P,
(2S) -4-[2-[[2-(4-Bromophenyl)ethyl]amino]-2-oxoethoxy]-\alpha-
methoxybenzenepropanoic acid 638190-83-7P,
(2S) -\alpha-Methoxy-4-[2-[[(1-naphthalenyl)methyl]amino]-2-
oxoethoxy]benzenepropanoic acid 638190-84-8P,
(2S) -4-[2-[[2-[[(2,6-Dichlorophenyl)methyl]thio]ethyl]amino]-2-
oxoethoxy] -\alpha-methoxybenzenepropanoic acid
638190-85-9P 638190-88-2P, (2S)-4-[2-[Ethyl](2-
fluorophenyl) methyl] amino] -2-oxoethoxy] -\alpha-
methoxybenzenepropanoic acid 638190-89-3P,
(2S) -4-[2-[Ethyl[(3-methylphenyl)methyl]amino]-2-oxoethoxy]-
\alpha-methoxybenzenepropanoic acid 638190-92-8P,
(2S) -4-[2-[[2-[Ethyl(3-methylphenyl)amino]ethyl]amino]-2-
oxoethoxy]-\alpha-methoxybenzenepropanoic acid
638190-93-9P, (2S)-\alpha-Methoxy-4-[2-oxo-2-[[2-(2-
pyridinyl)ethyl]amino]ethoxy]benzenepropanoic acid
638190-94-0P, (2S) -\alpha-Methoxy-4-[2-oxo-2-[[2-(3-
pyridinyl)ethyl]amino]ethoxy]benzenepropanoic acid
638190-95-1P 638190-96-2P 638190-97-3P
 (2S) -4 - [2 - (Cyclobutylamino) -2 -oxoethoxy] -\alpha -
methoxybenzenepropanoic acid 638190-98-4P
638190-99-5P 638191-00-1P 638191-01-2P
  (2S) -\alpha-Methoxy-4-[2-[(3-methylbutyl)amino]-2-
oxoethoxy]benzenepropanoic acid 638191-02-3P,
(2S) -4 - [2 - (Cyclopentylamino) - 2 - oxoethoxy] - \alpha -
methoxybenzenepropanoic acid 638191-03-4P
638191-04-5P, (2S)-4-[2-[(2,2,3,3,4,4,4-
Heptafluorobutyl) amino] -2-oxoethoxy] -\alpha-
methoxybenzenepropanoic acid 638191-08-9P,
(2S) -4 - [2 - (Hexylamino) -2 -oxoethoxy] -\alpha -
methoxybenzenepropanoic acid 638191-09-0P,
(2S) -4 - [2 - (Heptylamino) - 2 - oxoethoxy] - \alpha -
methoxybenzenepropanoic acid 638191-10-3P,
(2S) -4 - [2 - [(3,3-Dimethylbutyl)amino] -2 -oxoethoxy] -\alpha
methoxybenzenepropanoic acid 638191-11-4P
638191-24-9P, 4-[2-[Cyclohexyl[2-(4-
ethylphenyl)ethyl]amino]-2-oxoethoxy]-\alpha-
ethoxybenzenepropanoic acid 719277-13-1P,
(2S) - 3 - [4 - [2 - [Butyl [2 - fluoro - 4 - (trifluoromethyl)benzyl]amino] - 2 -
oxoethoxy]phenyl]-2-ethoxypropanoic acid 719277-14-2P,
(2S) - 3 - [4 - [2 - [(4 - Chlorobenzyl) (ethyl) amino] - 2 - oxoethoxy] phenyl] - 2 -
ethoxypropanoic acid 719277-15-3P, (2S)-2-Ethoxy-3-[4-[2-
[ethyl[4-(trifluoromethoxy)benzyl]amino]-2-
oxoethoxy]phenyl]propanoic acid 719277-16-4P,
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(2S) -2-Ethoxy-3-[4-[2-[ethyl[4-(trifluoromethyl)benzyl]amino]-2-
oxoethoxy]phenyl]propanoic acid 719277-17-5P,
(2S) -3-[4-[2-[Butyl [4-(trifluoromethyl)benzyl]amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-03-9P,
(2S)-3-[4-[2-[(2,4-Difluorobenzyl)(octyl)amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-07-3P,
(2S) -3-[4-[2-[(2,4-Difluorobenzyl)(nonyl)amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-11-9P,
(2S)-3-[4-[2-[(2,4-Difluorobenzyl)(4-ethylbenzyl)amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-15-3P,
(2S) -3-[4-[2-[Benzyl(methyl)amino]-2-oxoethoxy]phenyl]-2-
ethoxypropanoic acid 816465-17-5P, (2S)-2-Ethoxy-3-[4-[2-
[heptyl[(1-methylindol-2-yl)methyl]amino]-2-
oxoethoxy]phenyl]propanoic acid 816465-20-0P,
(2S) -3-[4-[2-[(2,3-Dimethoxybenzyl)(heptyl)amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-23-3P,
(2S)-3-[4-[2-[Butyl(2,3-dimethoxybenzyl)amino]-2-oxoethoxy]phenyl]-
2-ethoxypropanoic acid 816465-25-5P,
(2S) -3-[4-[2-[(4-Chlorobenzyl)(4-isopropylbenzyl)amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-28-8P,
(2S)-3-[4-[2-[(Cyclohexylmethyl)(2,4-difluorobenzyl)amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-33-5P,
(2S) -2-Ethoxy-3-[4-[2-[ethyl(2-fluorobenzyl)amino]-2-
oxoethoxy]phenyl]propanoic acid 816465-35-7P,
(2S) - 3 - [4 - [2 - [4 - (Benzyloxy)benzyl] (butyl)amino] - 2 -
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-37-9P,
(2S) -3 - [4 - [2 - [Bis (4 - Chlorobenzyl) amino] -2 -oxoethoxy] phenyl] -2 -
ethoxypropanoic acid 816465-43-7P, (2S)-3-[4-[2-[(4-tert-
Butylbenzyl) (4-chlorobenzyl) amino] -2-oxoethoxy] phenyl] -2-
ethoxypropanoic acid 816465-47-1P, (2S)-3-[4-[2-[(4-
Chlorobenzyl) [4-(trifluoromethyl)benzyl]amino]-2-oxoethoxy]phenyl]-
2-ethoxypropanoic acid 816465-51-7P,
(2S) -3 - [4 - [2 - [Bis [4 - (Trifluoromethyl) benzyl] amino] -2 -
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-55-1P,
(2S) -3 - [4 - [2 - [Benzyl (ethyl) amino] -2 -oxoethoxy] phenyl] -2 -
ethoxypropanoic acid 816465-57-3P, (2S)-3-[4-[2-[(4-tert-
Butylbenzyl) (ethyl) amino] -2-oxoethoxy] phenyl] -2-ethoxypropanoic
acid 816465-64-2P, (2S)-4-[2-(Heptylamino)-2-oxoethoxy]-
\alpha\text{-methoxy-}\alpha\text{-methylbenzenepropanoic} acid
816465-67-5P, (2S)-3-[2-[[2-(4-Ethylphenyl)ethyl]amino]-2-
oxoethoxy] -\alpha-methoxybenzenepropanoic acid
817181-62-7P 871731-30-5P
   (preparation of phenoxyacetamide derivs. as modulators of
   peroxisome proliferator-activated receptors for
   treating metabolic disorder)
549501-66-8 HCAPLUS
Benzenepropanoic acid, 4-[2-[(cyclohexylmethyl)heptylamino]-2-
oxoethoxy] -\alpha-ethoxy-, (\alphaS) - (9CI) (CA INDEX NAME)
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Absolute stereochemistry.

RN

CN

RN 549501-72-6 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(2,4-difluorophenyl)methyl]heptylamino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} F & & Me \\ & (CH_2) \overbrace{6} & & \\ N & & OEt \\ \end{array}$$

RN 549532-33-4 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2 [hexyl(phenylmethyl)amino]-2-oxoethoxy]-, (αS)- (9CI) (CA
 INDEX NAME)

Absolute stereochemistry.

RN 549532-35-6 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[hexyl(2-phenylethyl)amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

RN 638189-90-9 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[ethyl[2-(4-methoxyphenyl)-1methylethyl]amino]-2-oxoethoxy]-α-methoxy-, (αS)(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638189-91-0 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[[(1S)-1-(1-naphthalenyl)ethyl]amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638189-93-2 HCAPLUS

CN Benzenepropanoic acid, α-methoxy-4-[2-[methyl](1S)-1 phenylethyl]amino]-2-oxoethoxy]-, (αS)- (9CI) (CA INDEX
 NAME)

Absolute stereochemistry.

RN 638189-96-5 HCAPLUS

CN D-Phenylalanine, N-[[4-[(2S)-2-carboxy-2methoxyethyl]phenoxy]acetyl]-, α-methyl ester (9CI) (CA
INDEX NAME)

RN 638189-98-7 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(4-chlorophenyl)phenylmethyl]amino]-2-oxoethoxy]-<math>\alpha$ -methoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638189-99-8 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[butyl(1-phenylethyl)amino]-2-oxoethoxy]-\alpha-methoxy-, (<math>\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} \text{Me} & \text{Ph} \\ \text{N} & \text{OMe} \end{array}$$

RN 638190-00-8 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[(3,3-diphenylpropyl)amino]-2oxoethoxy]-α-methoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-01-9 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[(3-ethoxy-3-oxopropyl)(phenylmethyl)amino]-2-oxoethoxy]- α -methoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-02-0 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[[3-(methylphenylamino)propyl]amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} Ph \\ \hline \\ N \\ CH_2) \\ \hline \\ O \\ \end{array}$$

RN 638190-03-1 HCAPLUS

CN Benzenepropanoic acid, α-methoxy-4-[2-[[2-(4-methoxyphenoxy)ethyl]amino]-2-oxoethoxy]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-04-2 HCAPLUS

CN Benzenepropanoic acid, α-methoxy-4-[2-oxo-2-[(4-phenoxyphenyl)amino]ethoxy]-, (αS)- (9CI) (CA INDEX NAME)

RN 638190-05-3 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-3-[2-oxo-2-[(4-phenoxyphenyl)amino]ethoxy]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{OMe} \\ | \\ \text{NH-C-CH}_2 - \text{O} \\ \end{array}$$

RN 638190-08-6 HCAPLUS

CN Benzenepropanoic acid, α -methoxy- α -methyl-4-[2-oxo-2-[[2-(4-phenoxyphenyl)ethyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \mathsf{O} & \mathsf{O} \\ \mathsf{PhO} & \mathsf{CH_2}-\mathsf{CH_2}-\mathsf{NH}-\mathsf{C}-\mathsf{CH_2}-\mathsf{O} \\ \mathsf{CH_2}-\mathsf{C}-\mathsf{CO_2H} \\ \mathsf{Me} \end{array}$$

RN 638190-32-6 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-oxo-2-[[(1S)-1-phenylethyl]amino]ethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-61-1 HCAPLUS

CN Benzenepropanoic acid, α -methyl-4-[2-oxo-2-[[2-(4-phenoxyphenyl)ethyl]amino]ethoxy]- α -phenoxy-, (α S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-62-2 HCAPLUS

CN Benzenepropanoic acid, α -methyl-4-[2-oxo-2-[[2-(4-phenoxyphenyl)ethyl]amino]ethoxy]- α -phenoxy-, ethyl ester, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-63-3 HCAPLUS

CN Benzenepropanoic acid, α -ethyl-4-[2-oxo-2-[[2-(4-phenoxyphenyl)ethyl]amino]ethoxy]- α -phenoxy-, (α S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-65-5 HCAPLUS

CN Benzenepropanoic acid, α -methyl-4-[2-oxo-2-[[2-(4-phenoxyphenyl)ethyl]amino]ethoxy]- α -[4-(trifluoromethoxy)phenoxy]-, (α S)- (9CI) (CA INDEX NAME)

RN 638190-67-7 HCAPLUS

CN Benzenepropanoic acid, α -(4-fluorophenoxy)- α -methyl-4-[2-oxo-2-[[2-(4-phenoxyphenyl)ethyl]amino]ethoxy]-, (α S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-69-9 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[([1,1'-biphenyl]-4-ylmethyl)amino]-2-oxoethoxy]-a-methoxy-, (as)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-70-2 HCAPLUS

CN Benzenepropanoic acid, α-methoxy-4-[2-[methyl(1naphthalenylmethyl)amino]-2-oxoethoxy]-, (αS)- (9CI) (CF
INDEX NAME)

Absolute stereochemistry.

RN 638190-73-5 HCAPLUS

Absolute stereochemistry.

RN 638190-75-7 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-oxo-2-[(2-phenylethyl)(phenylmethyl)amino]ethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-81-5 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[(1,3-benzodioxol-5-ylmethyl)amino]-2-oxoethoxy]-<math>\alpha$ -methoxy-, (αS) - (9CI) (CA INDEX NAME)

RN 638190-82-6 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[2-(4-bromophenyl)ethyl]amino]-2oxoethoxy]-α-methoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-83-7 HCAPLUS

CN Benzenepropanoic acid, α-methoxy-4-[2-[(1naphthalenylmethyl)amino]-2-oxoethoxy]-, (αS)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

RN 638190-84-8 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[2-[[(2,6dichlorophenyl)methyl]thio]ethyl]amino]-2-oxoethoxy]-αmethoxy-, (αS)- (9CI) (CA INDEX NAME)

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RN 638190-85-9 HCAPLUS

Absolute stereochemistry.

RN 638190-88-2 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[ethyl[(2-fluorophenyl)methyl]amino]-2oxoethoxy]-α-methoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-89-3 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[ethyl](3-methylphenyl)methyl]amino]-2oxoethoxy]-α-methoxy-, (αS)- (9CI) (CA INDEX NAME)

RN 638190-92-8 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[2-[ethyl(3-methylphenyl)amino]ethyl]amino]-2-oxoethoxy]-<math>\alpha$ -methoxy-, $(\alpha S)-(9CI)$ (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-93-9 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-oxo-2-[[2-(2-pyridinyl)ethyl]amino]ethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-94-0 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-oxo-2-[[2-(3-pyridinyl)ethyl]amino]ethoxy]-, (α S)- (9CI) (CA INDEX NAME)

RN 638190-95-1 HCAPLUS

Absolute stereochemistry.

RN 638190-96-2 HCAPLUS

Absolute stereochemistry.

RN 638190-97-3 HCAPLUS

CN Benzenepropanoic acid, 4-[2-(cyclobutylamino)-2-oxoethoxy]- α -methoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-98-4 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[(1,3-dimethylbutyl)amino]-2oxoethoxy]-α-methoxy-, (αS)- (9CI) (CA INDEX NAME)

RN 638190-99-5 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[(1-methylhexyl)amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638191-00-1 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[(1-methylbutyl)amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

RN 638191-01-2 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[(3-methylbutyl)amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638191-02-3 HCAPLUS

CN Benzenepropanoic acid, 4-[2-(cyclopentylamino)-2-oxoethoxy]- α -methoxy-, (α S)- (9CI) (CA INDEX NAME)

RN 638191-03-4 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[(1-methyl-3-phenylpropyl)amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638191-04-5 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[(2,2,3,3,4,4,4-heptafluorobutyl)amino]-2-oxoethoxy]-α-methoxy-, (αS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638191-08-9 HCAPLUS

CN Benzenepropanoic acid, 4-[2-(hexylamino)-2-oxoethoxy]- α -methoxy-, (α S)- (9CI) (CA INDEX NAME)

Me
$$(CH_2)_{5}^{H}$$
 OMe OMe

RN 638191-09-0 HCAPLUS

CN Benzenepropanoic acid, $4-[2-(heptylamino)-2-oxoethoxy]-\alpha-methoxy-, (\alpha S)-(9CI)$ (CA INDEX NAME)

Absolute stereochemistry.

Me (CH₂)
$$\stackrel{H}{_{0}}$$
 OMe

RN 638191-10-3 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[(3,3-dimethylbutyl)amino]-2oxoethoxy]-α-methoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\underset{\text{Me}_3\text{C}}{\text{Me}_3\text{C}} \overset{\text{S}}{\underset{\text{O}}{\text{CO}_2\text{H}}}$$

RN 638191-11-4 HCAPLUS

CN Benzenepropanoic acid, 3-[2-[[cis-4-(1,1-dimethylethyl)cyclohexyl]amino]-2-oxoethoxy]-α-methoxy-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 638191-24-9 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[cyclohexyl[2-(4ethylphenyl)ethyl]amino]-2-oxoethoxy]-α-ethoxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{OEt} \\ \text{O} \\ \text{CH}_2-\text{CH}_2-\text{N} \\ \text{CH}_2-\text{CH}_2-\text{O} \end{array}$$

RN 719277-13-1 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[butyl[[2-fluoro-4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]- α -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 719277-14-2 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(4-chlorophenyl)methyl]ethylamino]-2-oxoethoxy]-\alpha-ethoxy-, (<math>\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 719277-15-3 HCAPLUS

Absolute stereochemistry.

RN 719277-16-4 HCAPLUS

RN 719277-17-5 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[butyl[[4- (trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]- α -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-03-9 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(2,4-difluorophenyl)methyl]octylamin o]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (αS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-07-3 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(2,4-difluorophenyl)methyl]nonylamin o]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-11-9 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(2,4-difluorophenyl)methyl][(4-

ethylphenyl)methyl]amino]-2-oxoethoxy]- α -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-15-3 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2- [methyl(phenylmethyl)amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-17-5 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[heptyl[(1-methyl-1H-indol-2-yl)methyl]amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-20-0 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(2,3-dimethoxyphenyl)methyl]heptylam ino]-2-oxoethoxy]- α -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \text{S} & \text{CO}_2\text{H} \\ & \text{OMe} & \text{O} & \text{OEt} \\ \end{array}$$

RN 816465-23-3 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[butyl[(2,3-dimethoxyphenyl)methyl]amino]-2-oxoethoxy]- α -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

RN 816465-25-5 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(4-\text{chlorophenyl})\,\text{methyl}][[4-(1-\text{methylethyl})\,\text{phenyl}]\,\text{methyl}]\,\text{amino}]-2-\text{oxoethoxy}]-\alpha-\text{ethoxy-}, (\alpha S)- (9CI) (CA INDEX NAME)$

Absolute stereochemistry.

RN 816465-28-8 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[(cyclohexylmethyl)]((2,4difluorophenyl)methyl]amino]-2-oxoethoxy]-α-ethoxy-,
(αS)- (9CI) (CA INDEX NAME)

RN 816465-33-5 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2-[ethyl[(2fluorophenyl)methyl]amino]-2-oxoethoxy]-, (αS)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

RN 816465-35-7 HCAPLUS

Absolute stereochemistry.

RN 816465-37-9 HCAPLUS

CN Benzenepropanoic acid, $4-\{2-[bis[(4-chlorophenyl)methyl]amino]-2-oxoethoxy]-\alpha-ethoxy-, (<math>\alpha S$)- (9CI) (CA INDEX NAME)

RN 816465-43-7 HCAPLUS

Absolute stereochemistry.

RN 816465-47-1 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(4-\text{chlorophenyl})\text{methyl}][[4-(\text{trifluoromethyl})\text{phenyl}]\text{methyl}]\text{amino}]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (αS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-51-7 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[bis[[4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

RN 816465-55-1 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2 [ethyl(phenylmethyl)amino]-2-oxoethoxy]-, (αS)- (9CI) (CA
 INDEX NAME)

Absolute stereochemistry.

RN 816465-57-3 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[[4-(1,1-dimethylethyl)phenyl]methyl]ethylamino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (αS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-64-2 HCAPLUS

CN Benzenepropanoic acid, $4-[2-(heptylamino)-2-oxoethoxy]-\alpha-methoxy-\alpha-methyl-, (<math>\alpha$ S)- (9CI) (CA INDEX NAME)

Me (CH₂)
$$\stackrel{\text{H}}{6}$$
 N O Me

RN 816465-67-5 HCAPLUS

CN Benzenepropanoic acid, 3-[2-[[2-(4-ethylphenyl)ethyl]amino]-2-oxoethoxy]-a-methoxy-, (aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 817181-62-7 HCAPLUS

CN Benzenepropanoic acid, $3-[2-[[4-(1,1-dimethylethyl)cyclohexyl]amin o]-2-oxoethoxy]-<math>\alpha$ -methoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 871731-30-5 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-oxo-2-[(1-phenylethyl)amino]ethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IC ICM A61K031-496

ICS A61K049-04; A61K031-44; A61K031-195

INCL 514255030; 514357000; 514567000; 544392000; 546335000; 562442000

CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid
 Compounds)
 Section cross-reference(s): 1, 27, 28

phenylalkanamide phenoxyalkanamide prepn modulator peroxisome proliferator activated receptor;

phenoxyacetamide prepn modulator **peroxisome** proliferator activated receptor; lipid disorder dyslipidemias metabolic syndrome treatment phenoxyacetamide prepn

IT Metabolic disorders

(metabolic syndrome X; preparation of phenoxyacetamide derivs. as

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modulators of peroxisome proliferator-activated
       receptors for treating metabolic disorder)
ΙT
    Human
        (preparation of phenoxyacetamide derivs. as modulators of
       peroxisome proliferator-activated receptors for
       treating metabolic disorder)
IT
    Dyslipidemia
       Peroxisome proliferator-activated receptors
        (preparation of phenoxyacetamide derivs. as modulators of
       peroxisome proliferator-activated receptors for
       treating metabolic disorder)
IT
    Peroxisome proliferator-activated receptors
        (\alpha; preparation of phenoxyacetamide derivs. as modulators of
       peroxisome proliferator-activated receptors for
       treating metabolic disorder)
     114413-73-9P, N-Butyl-N-(2,3-dimethoxybenzyl)amine
                                                           500789-57-1P,
IT
    N-Butyl-2,3-dimethoxybenzamide
                                     549501-67-9P, Ethyl
     (2S) -3-[4-[2-(benzyloxy)-2-oxoethoxy]phenyl]-2-ethoxypropanoate
     549501-68-0P, [4-((2S)-2,3-Diethoxy-3-oxopropyl)phenoxy]acetic
           549501-69-1P, N-(Cyclohexylmethyl)heptanamide
     549501-70-4P, N-(Cyclohexylmethyl)-N-heptylamine hydrochloride
     549501-71-5P, Ethyl (2S)-3-[4-[2-[(cyclohexylmethyl)(heptyl)amino]-
     2-oxoethoxy]phenyl]-2-ethoxypropanoate
                                              549501-73-7P,
    N-(2,4-Difluorobenzyl) heptanamide
                                         549501-74-8P,
    N-(2,4-Difluorobenzyl)heptylamine hydrochloride
                                                        549501-75-9P,
    Ethyl (2S)-3-[4-[2-[(2,4-difluorobenzyl)(heptyl)amino]-2-
    oxoethoxy]phenyl]-2-ethoxypropanoate
                                           549532-34-5P, Ethyl
     (2S) -3-[4-[2-[benzyl(hexyl)amino]-2-oxoethoxy]phenyl]-2-
                       549532-36-7P, Ethyl (2S)-2-ethoxy-3-[4-[2-
     ethoxypropanoate
     [hexyl(2-phenylethyl)amino]-2-oxoethoxy]phenyl]propanoate
     637015-19-1P, N-(2,3-Dimethoxybenzyl)-N-heptylamine
     719277-18-6P, N-Butyl-N-[2-fluoro-4-(trifluoromethyl)benzyl]amine
     719277-19-7P, Ethyl (2S)-3-[4-[2-[butyl[2-fluoro-4-
     (trifluoromethyl)benzyl]amino]-2-oxoethoxy]phenyl]-2-
                        719277-20-0P, Ethyl (2S)-3-[4-[2-[(4-
     ethoxypropanoate
     chlorobenzyl) (ethyl)amino]-2-oxoethoxy]phenyl]-2-ethoxypropanoate
     719277-21-1P, N-[4-(Trifluoromethoxy)benzyl]acetamide
     719277-22-2P, N-Ethyl-N-[4-(Trifluoromethoxy)benzyl]amine
                    719277-24-4P, Ethyl (2S)-2-ethoxy-3-[4-[2-[ethyl[4-
     719277-23-3P
     (trifluoromethyl)benzyl]amino]-2-oxoethoxy]phenyl]propanoate
     765303-27-3P, Ethyl (2S)-3-[4-[2-[butyl[4-
     (trifluoromethyl)benzyl]amino]-2-oxoethoxy]phenyl]-2-
                        816465-04-0P, N-(2,4-Difluorobenzyl)octanamide
     ethoxypropanoate
     816465-05-1P, N-(2,4-Difluorobenzyl)octylamine hydrochloride
     816465-06-2P, Ethyl (2S)-3-[4-[2-[(2,4-
    difluorobenzyl) (octyl) amino] -2-oxoethoxy] phenyl] -2-
                       816465-08-4P, N-(2,4-Difluorobenzyl)nonanamide
     ethoxypropanoate
     816465-09-5P, N-(2,4-Difluorobenzyl)nonylamine hydrochloride
     816465-10-8P, Ethyl (2S)-3-[4-[2-[(2,4-
    difluorobenzyl) (nonyl) amino] -2-oxoethoxy] phenyl] -2-
     ethoxypropanoate
                        816465-12-0P, N-(2,4-Difluorobenzyl)-4-
                     816465-13-1P, N-(2,4-Difluorobenzyl)-N-(4-
     ethylbenzamide
                        816465-14-2P, Ethyl (2S)-3-[4-[2-[(2,4-
     ethylbenzyl)amine
    difluorobenzyl) (4-ethylbenzyl) amino] -2-oxoethoxy] phenyl] -2-
                        816465-16-4P, Ethyl (2S)-3-[4-[2-
     ethoxypropanoate
     [benzyl (methyl) amino] -2-oxoethoxy] phenyl] -2-ethoxypropanoate
     816465-18-6P, N-Heptyl-N-[(1-methylindol-2-yl)methyl]amine
     816465-19-7P, Ethyl (2S)-2-ethoxy-3-[4-[2-[heptyl[(1-methylindol-2-
    yl)methyl]amino]-2-oxoethoxy]phenyl]propanoate
                                                      816465-21-1P,
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N-Heptyl-2,3-dimethoxybenzamide 816465-22-2P, Ethyl
     (2S) -3-[4-[2-[(2,3-dimethoxybenzyl) (heptyl)amino]-2-
     oxoethoxy]phenyl]-2-ethoxypropanoate
                                            816465-24-4P, Ethyl
     (2S) - 3 - [4 - [2 - [butyl (2, 3 - dimethoxybenzyl) amino] - 2 - oxoethoxy] phenyl] -
                          816465-26-6P, N-(4-Chlorobenzyl)-N-(4-
     2-ethoxypropanoate
     isopropylbenzyl)amine
                            816465-27-7P, Ethyl (2S)-3-[4-[2-[(4-
     chlorobenzyl) (4-isopropylbenzyl) amino] -2-oxoethoxy] phenyl} -2-
     ethoxypropanoate
                        816465-29-9P, N-(Cyclohexylmethyl)-N-(2,4-
     difluorobenzyl) amine
                            816465-31-3P, Ethyl (2S)-3-[4-[2-
     [(cyclohexylmethyl)(2,4-difluorobenzyl)amino]-2-oxoethoxy]phenyl]-
     2-ethoxypropanoate 816465-34-6P, Ethyl (2S)-2-ethoxy-3-[4-[2-
     [ethyl(2-fluorobenzyl)amino]-2-oxoethoxy]phenyl]propanoate
     816465-36-8P, Ethyl (2S)-3-[4-[2-[[4-(benzyloxy)benzyl](butyl)amin
     o]-2-oxoethoxy]phenyl]-2-ethoxypropanoate 816465-39-1P, Ethyl
     (2S) -3-[4-[2-[bis(4-chlorobenzyl)amino]-2-oxoethoxy]phenyl]-2-
     ethoxypropanoate
                       816465-45-9P, N-(4-tert-Butylbenzyl)-N-(4-
     chlorobenzyl)amine
                          816465-46-0P, Ethyl (2S)-3-[4-[2-[(4-tert-
     butylbenzyl) (4-chlorobenzyl) amino] -2-oxoethoxy] phenyl] -2-
                       816465-49-3P, Ethyl (2S)-3-[4-[2-[(4-
     ethoxypropanoate
     chlorobenzyl) [4-(trifluoromethyl)benzyl]amino]-2-oxoethoxy]phenyl]-
     2-ethoxypropanoate
                          816465-52-8P, Ethyl (2S)-3-[4-[2-[bis[4-
     (trifluoromethyl)benzyl]amino]-2-oxoethoxy]phenyl]-2-
     ethoxypropanoate
                       816465-56-2P, Ethyl (2S)-3-[4-[2-
     [benzyl(ethyl)amino]-2-oxoethoxy]phenyl]-2-ethoxypropanoate
     816465-58-4P, Ethyl (2S)-3-[4-[2-[(4-tert-
     butylbenzyl) (ethyl) amino] -2-oxoethoxy]phenyl] -2-ethoxypropanoate
        (intermediate; preparation of phenoxyacetamide derivs. as modulators
        of peroxisome proliferator-activated receptors for
        treating metabolic disorder)
     549501-66-8P, (2S)-3-[4-[2-[(Cyclohexylmethyl)(heptyl)amin
ΤТ
     o]-2-oxoethoxy]phenyl]-2-ethoxypropanoic acid 549501-72-6P
     , (2S) -3-[4-[2-[(2,4-Difluorobenzyl)(heptyl)amino]-2-
     oxoethoxy]phenyl]-2-ethoxypropanoic acid 549532-33-4P,
     (2S) -3-[4-[2-[Benzyl(hexyl)amino]-2-oxoethoxy]phenyl]-2-
     ethoxypropanoic acid 549532-35-6P, (2S)-2-Ethoxy-3-[4-[2-
     [hexyl(2-phenylethyl)amino]-2-oxoethoxy]phenyl]propanoic acid
     638189-57-8P 638189-90-9P 638189-91-0P
                    638189-94-3P, (2S)-4-[2-[4-(4-
     638189-93-2P
     Fluorobenzoyl) -1-piperidinyl] -2-oxoethoxy] -\alpha-
     methoxybenzenepropanoic acid 638189-95-4P, (2S)-4-[2-[4-(4-
     Chlorobenzoyl)-1-piperidinyl]-2-oxoethoxy]-\alpha-
     methoxybenzenepropanoic acid 638189-96-5P
                                                  638189-97-6P
     638189-98-7P 638189-99-8P 638190-00-8P
     , (2S) -4 - [2 - [(3,3-Diphenylpropyl)amino] -2 -oxoethoxy] -\alpha -
     methoxybenzenepropanoic acid 638190-01-9P,
     (2S) -4-[2-[(3-Ethoxy-3-oxopropyl) (phenylmethyl)amino]-2-oxoethoxy]-
     \alpha-methoxybenzenepropanoic acid 638190-02-0P
     638190-03-1P, (2S) -\alpha-Methoxy-4-[2-[[2-(4-
     methoxyphenoxy)ethyl]amino]-2-oxoethoxy]benzenepropanoic acid
     638190-04-2P 638190-05-3P 638190-08-6P
     638190-32-6P 638190-61-1P 638190-62-2P
     638190-63-3P 638190-65-5P 638190-67-7P
     638190-69-9P, (2S)-4-[2-[[(1,1'-Biphenyl-4-
     yl) methyl] amino] -2-oxoethoxy] -\alpha-methoxybenzenepropanoic acid
     638190-70-2P, (2S) -\alpha-Methoxy-4-[2-[methyl](1-
     naphthalenyl)methyl]amino]-2-oxoethoxy]benzenepropanoic acid
     638190-71-3P, (2S)-4-[2-[4-(Diphenylmethyl)-1-piperazinyl]-2-
     oxoethoxy]-\alpha-methoxybenzenepropanoic acid 638190-72-4P,
     (2S) -4-[2-[4-[Bis(4-fluorophenyl)methyl]-1-piperazinyl]-2-
     oxoethoxy] -\alpha-methoxybenzenepropanoic acid
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638190-73-5P 638190-74-6P, (2S)-4-[2-(3,4-Dihydro-2(1H)-
isoquinoliny1)-2-oxoethoxy]-\alpha-methoxybenzenepropanoic acid
638190-75-7P 638190-76-8P, (2S)-4-[2-[4-(4-Fluorophenyl)-
1-piperazinyl]-2-oxoethoxy]-\alpha-methoxybenzenepropanoic acid
638190-77-9P
              638190-78-0P, (2S)-4-[2-[4-(3-Chlorophenyl)-1-
piperazinyl]-2-oxoethoxy]-\alpha-methoxybenzenepropanoic acid
638190-79-1P, (2S)-4-[2-[4-[(4-Chlorophenyl)methyl]-1-piperazinyl]-
2-oxoethoxy]-α-methoxybenzenepropanoic acid
638190-81-5P, (2S)-4-[2-[(1,3-Benzodioxol-5-
ylmethyl)amino]-2-oxoethoxy]-\alpha-methoxybenzenepropanoic acid
638190-82-6P, (2S)-4-[2-[[2-(4-Bromophenyl)ethyl]amino]-2-
oxoethoxy] -\alpha-methoxybenzenepropanoic acid
638190-83-7P, (2S)-\alpha-Methoxy-4-[2-[[(1-
naphthalenyl)methyl]amino]-2-oxoethoxy]benzenepropanoic acid
638190-84-8P, (2S)-4-[2-[[2-[[(2,6-
Dichlorophenyl) methyl] thio] ethyl] amino] -2-oxoethoxy] -\alpha-
methoxybenzenepropanoic acid 638190-85-9P
638190-86-0P, (2S)-4-[2-[4-(4-Acetylphenyl)-1-piperazinyl]-2-
oxoethoxy] -\alpha-methoxybenzenepropanoic acid
                                              638190-87-1P
638190-88-2P, (2S)-4-[2-[Ethyl](2-
fluorophenyl) methyl] amino] -2-oxoethoxy] -\alpha-
methoxybenzenepropanoic acid 638190-89-3P,
(2S) -4-[2-[Ethyl[(3-methylphenyl)methyl]amino]-2-oxoethoxy]-
                                   638190-90-6P,
α-methoxybenzenepropanoic acid
(2S) -4-[2-[4-[(4-Fluorophenyl)methyl]-1-piperazinyl]-2-oxoethoxy]-
α-methoxybenzenepropanoic acid 638190-92-8P,
(2S) -4-[2-[[2-[Ethyl(3-methylphenyl)amino]ethyl]amino]-2-
oxoethoxy] -\alpha-methoxybenzenepropanoic acid
638190-93-9P, (2S)-\alpha-Methoxy-4-[2-oxo-2-[[2-(2-
pyridinyl)ethyl]amino]ethoxy]benzenepropanoic acid
638190-94-0P, (2S) -\alpha-Methoxy-4-[2-oxo-2-[[2-(3-
pyridinyl)ethyl]amino]ethoxy]benzenepropanoic acid
638190-95-1P 638190-96-2P 638190-97-3P
, (2S) -4 - [2 - (Cyclobutylamino) -2 -oxoethoxy] -\alpha -
methoxybenzenepropanoic acid 638190-98-4P
638190-99-5P 638191-00-1P 638191-01-2P
, (2S) -\alpha-Methoxy-4-[2-[(3-methylbutyl)amino]-2-
oxoethoxy]benzenepropanoic acid 638191-02-3P,
(2S) -4 - [2 - (Cyclopentylamino) -2 -oxoethoxy] -\alpha -
methoxybenzenepropanoic acid 638191-03-4P
638191-04-5P, (2S)-4-[2-[(2,2,3,3,4,4,4-
Heptafluorobutyl) amino] -2-oxoethoxy] -\alpha-
methoxybenzenepropanoic acid 638191-08-9P,
(2S) -4 - [2 - (Hexylamino) - 2 - oxoethoxy] - \alpha -
methoxybenzenepropanoic acid 638191-09-0P,
(2S) -4 - [2 - (Heptylamino) -2 -oxoethoxy] -\alpha -
methoxybenzenepropanoic acid 638191-10-3P,
(2S) -4 - [2 - [(3,3-Dimethylbutyl)amino] -2-oxoethoxy] -\alpha-
methoxybenzenepropanoic acid 638191-11-4P
638191-24-9P, 4-[2-[Cyclohexyl[2-(4-
ethylphenyl) ethyl] amino] -2-oxoethoxy] -\alpha-
ethoxybenzenepropanoic acid 719277-13-1P,
(2S)-3-[4-[2-[Butyl[2-fluoro-4-(trifluoromethyl)benzyl]amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 719277-14-2P,
(2S)-3-[4-[2-[(4-Chlorobenzyl)(ethyl)amino]-2-oxoethoxy]phenyl]-2-
ethoxypropanoic acid 719277-15-3P, (2S)-2-Ethoxy-3-[4-[2-
[ethyl[4-(trifluoromethoxy)benzyl]amino]-2-
oxoethoxy]phenyl]propanoic acid 719277-16-4P,
(2S) -2-Ethoxy-3-[4-[2-[ethyl [4-(trifluoromethyl)benzyl]amino]-2-
oxoethoxy]phenyl]propanoic acid 719277-17-5P,
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(2S) -3 - [4 - [2 - [Butyl [4 - (trifluoromethyl) benzyl] amino] -2 -
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-03-9P,
(2S) -3-[4-[2-[(2,4-Difluorobenzyl)(octyl)amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-07-3P,
(2S) -3-[4-[2-[(2,4-Difluorobenzyl) (nonyl) amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-11-9P,
(2S) -3-[4-[2-[(2,4-Difluorobenzyl)(4-ethylbenzyl)amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-15-3P,
(2S) -3-[4-[2-[Benzyl(methyl)amino]-2-oxoethoxy]phenyl]-2-
ethoxypropanoic acid 816465-17-5P, (2S)-2-Ethoxy-3-[4-[2-
[heptyl[(1-methylindol-2-yl)methyl]amino]-2-
oxoethoxy]phenyl]propanoic acid 816465-20-0P,
(2S) -3-[4-[2-[(2,3-Dimethoxybenzyl)(heptyl)amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-23-3P,
(2S) - 3 - [4 - [2 - [Butyl (2, 3 - dimethoxybenzyl) amino] - 2 - oxoethoxy] phenyl] -
2-ethoxypropanoic acid 816465-25-5P,
(2S) -3-[4-[2-[(4-Chlorobenzyl)(4-isopropylbenzyl)amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-28-8P,
(2S) -3-[4-[2-[(Cyclohexylmethyl)(2,4-difluorobenzyl)amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-33-5P,
(2S) -2-Ethoxy-3-[4-[2-[ethyl(2-fluorobenzyl)amino]-2-
oxoethoxy]phenyl]propanoic acid 816465-35-7P,
(2S) -3-[4-[2-[[4-(Benzyloxy)benzyl](butyl)amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-37-9P,
(2S) -3-[4-[2-[Bis(4-Chlorobenzyl)amino]-2-oxoethoxy]phenyl]-2-
ethoxypropanoic acid 816465-43-7P, (2S)-3-[4-[2-[(4-tert-
Butylbenzyl) (4-chlorobenzyl) amino] -2-oxoethoxy] phenyl] -2-
ethoxypropanoic acid 816465-47-1P, (2S)-3-[4-[2-[(4-
Chlorobenzyl) [4-(trifluoromethyl)benzyl]amino]-2-oxoethoxy]phenyl]-
2-ethoxypropanoic acid 816465-51-7P,
(2S) -3-[4-[2-[Bis[4-(Trifluoromethyl)benzyl]amino]-2-
oxoethoxy]phenyl]-2-ethoxypropanoic acid 816465-55-1P,
(2S) -3-[4-[2-[Benzyl(ethyl)amino]-2-oxoethoxy]phenyl]-2-
ethoxypropanoic acid 816465-57-3P, (2S)-3-[4-[2-[(4-tert-
Butylbenzyl) (ethyl) amino] -2-oxoethoxylphenyl] -2-ethoxypropanoic
acid 816465-64-2P, (2S)-4-[2-(Heptylamino)-2-oxoethoxy]-
\alpha-methoxy-\alpha-methylbenzenepropanoic acid
816465-65-3P, 4-[2-[4-(2-Fluorophenyl)-1-piperazinyl]-2-oxoethoxy]-
\alpha-methoxybenzenepropanoic acid 816465-67-5P,
(2S) -3-[2-[[2-(4-Ethylphenyl)ethyl]amino]-2-oxoethoxy]-\alpha-
methoxybenzenepropanoic acid 817181-62-7P
871731-30-5P
   (preparation of phenoxyacetamide derivs. as modulators of
  peroxisome proliferator-activated receptors for
   treating metabolic disorder)
                                104-86-9, 4-Chlorobenzylamine
103-67-3, N-Methylbenzylamine
109-73-9, n-Butylamine, reactions 111-14-8, Heptanoic acid
111-68-2, Heptylamine 112-05-0, Nonanoic acid
                                                  122-03-2,
4-Isopropylbenzaldehyde 124-07-2, Octanoic acid, reactions
619-64-7, 4-Ethylbenzoic acid 939-97-9, 4-tert-Butylbenzaldehyde
1521-38-6, 2,3-Dimethoxybenzoic acid 2043-61-0,
                            3218-02-8, Aminomethylcyclohexane
Cyclohexanecarboxaldehyde
5437-45-6, Benzyl bromoacetate
                                14321-27-8, N-Benzyl-N-ethylamine
21913-13-3, N,N-Bis(4-chlorobenzyl)amine
                                           24997-83-9,
N-Hexyl-2-phenylethylamine 25468-44-4, N-Hexylbenzylamine
27421-51-8, 1-Methylindole-2-carboxaldehyde
                                             64567-25-5,
N-Ethyl-N-(2-fluorobenzyl)amine 66741-82-0, N-[4-
(Benzyloxy) benzyl] -N-butylamine
                                 69957-83-1, N-(4-Chlorobenzyl)-N-
ethylamine 72235-52-0, 2,4-Difluorobenzylamine
                                                    89763-93-9,
2-Fluoro-4-(trifluoromethyl)benzaldehyde 90390-12-8,
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N-Ethyl-N-[4-(trifluoromethyl)benzyl]amine
                                             90390-14-0,
N-Butyl-N-[4-(trifluoromethyl)benzyl]amine
4-(Trifluoromethoxy) benzylamine 145126-91-6,
N, N-Bis [4-(trifluoromethyl)benzyl]amine 152821-50-6,
N-(4-tert-Butylbenzyl)-N-ethylamine
                                     202145-03-7,
N-(4-Chlorobenzyl)-N-[4-(trifluoromethyl)benzyl]amine
222555-06-8, Ethyl (2S)-2-ethoxy-3-(4-hydroxyphenyl)propanoate
   (reactant; preparation of phenoxyacetamide derivs. as modulators of
   peroxisome proliferator-activated receptors for
   treating metabolic disorder)
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L32 ANSWER 2 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:1154649 HCAPLUS

DOCUMENT NUMBER:

142:93514

TITLE:

Preparation of phenylpropanoic acid

derivatives as PPARa agonists

INVENTOR(S):

Li, Lanna; Lindstedt-Alstermark, Eva-Lotte;

Olsson, Christina

PATENT ASSIGNEE(S):

Astrazeneca Ab, Swed. PCT Int. Appl., 100 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.						KIND DATE]	APPL	DATE				
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OTHER SOURCE(S): MARPAT 142:93514

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Title compds. represented by the formula I [wherein A = AB CR3(R4)CR1(R2)COR or C(R3):C(R1)COR; R = H, alkoxy, (alkyl)aryloxy, amino, etc.; R1 = alkyl, aryl, alkenyl, alkynyl, etc.; R2 = H, halo, alkyl, (alkyl)aryl; R3, R4 = independently H, alkyl, (alkyl)aryl; T = O, S or a single bond; n = 1-4; R5, R6 = independently selected substituent comprising C, H, N, O, S, Se, P or halo; with provisos; optical isomers and racemates thereof as well as pharmaceutically acceptable salts, prodrugs, solvates and crystalline forms thereof] were prepared as PPAR α agonists. For example, II was given in a multi-step synthesis starting from the reaction of 2,4-difluorobenzylamine with octanoic acid. I had EC50 values of less than 0.1 μ mil/L for PPAR α and showed the ration of the EC50(PPAR γ) with EC50(PPAR α) is greater than 150:1. Thus, I and their pharmaceutical compns. are useful for the treatment of clin. conditions including lipid disorders (dyslipidemias) whether or not associated with insulin resistance (no data).

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IT
     299176-05-9P 638189-90-9P 638189-91-0P
     638189-92-1P 638189-93-2P 638189-98-7P
     638189-99-8P 638190-00-8P 638190-01-9P
     638190-02-0P 638190-03-1P 638190-04-2P
     638190-05-3P 638190-08-6P 638190-32-6P
     638190-61-1P 638190-62-2P 638190-63-3P
     638190-65-5P 638190-67-7P 638190-69-9P
     638190-70-2P 638190-73-5P 638190-75-7P
     638190-81-5P 638190-82-6P 638190-83-7P
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     638190-92-8P 638190-93-9P 638190-94-0P
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     638191-03-4P 638191-04-5P 638191-08-9P
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     816466-27-0P 816466-28-1P 816466-29-2P
     816466-30-5P 816466-31-6P 816466-32-7P
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     816466-42-9P 816466-43-0P 816466-44-1P
     816466-45-2P 816466-46-3P 816466-47-4P
     817181-61-6P 817181-62-7P 817181-63-8P
        (preparation of phenylpropanoic acid derivs. as PPARα
        agonists)
RN
     299176-05-9 HCAPLUS
     Benzenepropanoic acid, 4-[2-[[2-[[(1,1-
CN
     dimethylethoxy)carbonyl]methylamino]-4-hydroxyphenyl]amino]-2-
     oxoethoxy]-\alpha-(methylthio)-, ethyl ester (9CI) (CA INDEX
     NAME)
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RN 638189-90-9 HCAPLUS
CN Benzenepropanoic acid, 4-[2-[ethyl[2-(4-methoxyphenyl)-1-methylethyl]amino]-2-oxoethoxy]-α-methoxy-, (αS)(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638189-91-0 HCAPLUS
CN Benzenepropanoic acid, α-methoxy-4-[2-[[(1S)-1-(1-naphthalenyl)ethyl]amino]-2-oxoethoxy]-, (αS)- (9CI) (CFINDEX NAME)

RN 638189-92-1 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-oxo-2-[[(1R)-1-phenylethyl]amino]ethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ & & \\ \text{Me} & & \\ & & \\ \text{Ph} & & \\ \end{array}$$

RN 638189-93-2 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[methyl](1S)-1-phenylethyl]amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638189-98-7 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(4-chlorophenyl)phenylmethyl]amino]-2-oxoethoxy]-a-methoxy-, (aS)- (9CI) (CA INDEX NAME)

RN 638189-99-8 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[butyl(1-phenylethyl)amino]-2oxoethoxy]-α-methoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-00-8 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[(3,3-diphenylpropyl)amino]-2-oxoethoxy]-\alpha-methoxy-, (<math>\alpha S$)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-01-9 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[(3-ethoxy-3-oxopropyl)(phenylmethyl)amino]-2-oxoethoxy]-<math>\alpha$ -methoxy-, (αS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-02-0 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[[3-(methylphenylamino)propyl]amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} Ph & & & \\ & & N & \\ Me & & N & \\ & & N & \\ & & & O & \\ \end{array}$$

RN 638190-03-1 HCAPLUS

CN Benzenepropanoic acid, α-methoxy-4-[2-[[2-(4methoxyphenoxy)ethyl]amino]-2-oxoethoxy]-, (αS)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

RN 638190-04-2 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-oxo-2-[(4-phenoxyphenyl)amino]ethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-05-3 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-3-[2-oxo-2-[(4-phenoxyphenyl)amino]ethoxy]- (9CI) (CA INDEX NAME)

RN 638190-08-6 HCAPLUS

CN Benzenepropanoic acid, α -methoxy- α -methyl-4-[2-oxo-2-

[[2-(4-phenoxyphenyl)ethyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O \\ \hline \\ \text{PhO} \end{array} \begin{array}{c} O \\ \hline \\ \text{CH}_2-\text{CH}_2-\text{NH}-\text{C-CH}_2-\text{O} \\ \hline \\ \text{CH}_2-\text{C-CO}_2\text{H} \\ \hline \\ \text{Me} \end{array}$$

RN 638190-32-6 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-oxo-2-[[(1S)-1-phenylethyl]amino]ethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-61-1 HCAPLUS

CN Benzenepropanoic acid, α -methyl-4-[2-oxo-2-[[2-(4-phenoxyphenyl)ethyl]amino]ethoxy]- α -phenoxy-, (α S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-62-2 HCAPLUS

CN Benzenepropanoic acid, α -methyl-4-[2-oxo-2-[[2-(4-phenoxyphenyl)ethyl]amino]ethoxy]- α -phenoxy-, ethyl ester, (α S)- (9CI) (CA INDEX NAME)

RN 638190-63-3 HCAPLUS

CN Benzenepropanoic acid, α -ethyl-4-[2-oxo-2-[[2-(4-phenoxyphenyl)ethyl]amino]ethoxy]- α -phenoxy-, (α S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-65-5 HCAPLUS

CN Benzenepropanoic acid, α -methyl-4-[2-oxo-2-[[2-(4-phenoxyphenyl)ethyl]amino]ethoxy]- α -[4-(trifluoromethoxy)phenoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-67-7 HCAPLUS

CN Benzenepropanoic acid, α -(4-fluorophenoxy)- α -methyl-4-[2-oxo-2-[[2-(4-phenoxyphenyl)ethyl]amino]ethoxy]-, (α S)-(9CI) (CA INDEX NAME)

RN 638190-69-9 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[([1,1'-biphenyl]-4-ylmethyl)amino]-2-oxoethoxy]-\alpha-methoxy-, (<math>\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-70-2 HCAPLUS

CN Benzenepropanoic acid, α-methoxy-4-[2-[methyl(1naphthalenylmethyl)amino]-2-oxoethoxy]-, (αS)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

RN 638190-73-5 HCAPLUS

CN Benzenepropanoic acid, α-methoxy-4-[2-oxo-2-[[2-(4-phenoxyphenyl)ethyl]amino]ethoxy]-, (αS)- (9CI) (CA INDEX NAME)

RN 638190-75-7 HCAPLUS

CN Benzenepropanoic acid, α-methoxy-4-[2-oxo-2-[(2phenylethyl) (phenylmethyl) amino] ethoxy] -, (αS) - (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

RN 638190-81-5 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[(1,3-benzodioxol-5-ylmethyl)amino]-2-oxoethoxy]-<math>\alpha$ -methoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-82-6 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[2-(4-bromophenyl)ethyl]amino]-2-oxoethoxy]-<math>\alpha$ -methoxy-, (αS) - (9CI) (CA INDEX NAME)

RN 638190-83-7 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[(1-naphthalenylmethyl)amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-84-8 HCAPLUS CN Benzenepropanoic acid, 4-[2-[[2-[[(2,6-dichlorophenyl)methyl]thio]ethyl]amino]-2-oxoethoxy]- α -methoxy-, (α S)- (9CI) (CA INDEX NAME)

RN 638190-88-2 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[ethyl[(2-fluorophenyl)methyl]amino]-2oxoethoxy]-α-methoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-89-3 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[ethyl[(3-methylphenyl)methyl]amino]-2oxoethoxy]-α-methoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-92-8 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[2-[ethyl(3-methylphenyl)amino]ethyl]amino]-2-oxoethoxy]-<math>\alpha$ -methoxy-, (αS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-93-9 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-oxo-2-[[2-(2-pyridinyl)ethyl]amino]ethoxy]-, (α S)- (9CI) (CA INDEX NAME)

RN 638190-94-0 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-oxo-2-[[2-(3-pyridinyl)ethyl]amino]ethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-97-3 HCAPLUS

CN Benzenepropanoic acid, 4-[2-(cyclobutylamino)-2-oxoethoxy]- α -methoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638190-98-4 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[(1,3-dimethylbutyl)amino]-2-oxoethoxy]-a-methoxy-, (aS)- (9CI) (CA INDEX NAME)

RN 638190-99-5 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[(1-methylhexyl)amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Me
$$(CH_2)_4$$
 H N OMe OMe

RN 638191-00-1 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[(1-methylbutyl)amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638191-01-2 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[(3-methylbutyl)amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638191-02-3 HCAPLUS

CN Benzenepropanoic acid, 4-[2-(cyclopentylamino)-2-oxoethoxy]- α -methoxy-, (α S)- (9CI) (CA INDEX NAME)

RN 638191-03-4 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[(1-methyl-3-phenylpropyl)amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ & & & \\ Ph & & \\ & & Me & O \end{array}$$

RN 638191-04-5 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[(2,2,3,3,4,4,4-heptafluorobutyl)amino]-2-oxoethoxy]-<math>\alpha$ -methoxy-, (αS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638191-08-9 HCAPLUS

CN Benzenepropanoic acid, 4-[2-(hexylamino)-2-oxoethoxy]- α -methoxy-, (α S)- (9CI) (CA INDEX NAME)

Me
$$(CH_2)_{5}^{H}$$
 OMe OMe

RN 638191-09-0 HCAPLUS

CN Benzenepropanoic acid, 4-[2-(heptylamino)-2-oxoethoxy]- α -methoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Me
$$(CH_2)_6$$
 N OMe OMe

RN 638191-10-3 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[(3,3-dimethylbutyl)amino]-2oxoethoxy]-α-methoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 638191-11-4 HCAPLUS

CN Benzenepropanoic acid, 3-[2-[[cis-4-(1,1-dimethylethyl)cyclohexyl]amino]-2-oxoethoxy]-α-methoxy-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 638191-24-9 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[cyclohexyl[2-(4-ethylphenyl)ethyl]amino]-2-oxoethoxy]-α-ethoxy- (9CI) (CA INDEX NAME)

RN 816465-03-9 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(2,4-difluorophenyl)methyl]octylamin o]-2-oxoethoxy]- α -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} F & & Me \\ & (CH_2) 7 & & \\ \hline & N & O & \\ \hline & & OEt & \\ \end{array}$$

RN 816465-07-3 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(2,4-difluorophenyl)methyl]nonylamin o]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (αS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} F & & Me \\ & (CH_2)_{8} & & \\ \hline & N & O & \\ \end{array}$$

RN 816465-11-9 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(2,4-difluorophenyl)methyl][(4ethylphenyl)methyl]amino]-2-oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-15-3 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2 [methyl(phenylmethyl)amino]-2-oxoethoxy]-, (αS)- (9CI) (CA
 INDEX NAME)

RN 816465-17-5 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[heptyl](1-methyl-1H-indol-2-yl)methyl]amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-20-0 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[(2,3-dimethoxyphenyl)methyl]heptylamino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-23-3 HCAPLUS

Absolute stereochemistry.

RN 816465-25-5 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(4-chlorophenyl)methyl][[4-(1-

methylethyl)phenyl]methyl]amino]-2-oxoethoxy]- α -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-28-8 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[(cyclohexylmethyl)](2,4-difluorophenyl)methyl]amino]-2-oxoethoxy]- α -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-33-5 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2-[ethyl[(2fluorophenyl)methyl]amino]-2-oxoethoxy]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-35-7 HCAPLUS

Absolute stereochemistry.

RN 816465-37-9 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[bis[(4-chlorophenyl)methyl]amino]-2oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-43-7 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(4-chlorophenyl)methyl][[4-(1,1-dimethylethyl)phenyl]methyl]amino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (αS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-47-1 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(4-chlorophenyl)methyl][[4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (αS) - (9CI) (CA INDEX NAME)

RN 816465-51-7 HCAPLUS

Absolute stereochemistry.

RN 816465-55-1 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[ethyl(phenylmethyl)amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-57-3 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[[4-(1,1-dimethylethyl)phenyl]methyl]ethylamino]-2-oxoethoxy]-\alpha-ethoxy-, (<math>\alpha$ S)- (9CI) (CA INDEX NAME)

RN 816465-64-2 HCAPLUS

CN Benzenepropanoic acid, $4-[2-(heptylamino)-2-oxoethoxy]-\alpha-methoxy-\alpha-methyl-, (<math>\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Me (CH₂)
$$\stackrel{\text{H}}{_{6}}$$
 $\stackrel{\text{N}}{_{0}}$ $\stackrel{\text{OMe}}{_{0}}$

RN 816465-66-4 HCAPLUS

CN Benzenepropanoic acid, α-methoxy-4-[2-oxo-2-[[(1S)-1phenylethyl](phenylmethyl)amino]ethoxy]-, (αS)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

RN 816465-67-5 HCAPLUS

CN Benzenepropanoic acid, $3-[2-[[2-(4-ethylphenyl)ethyl]amino]-2-oxoethoxy]-\alpha-methoxy-, (<math>\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-72-2 HCAPLUS

CN Benzenepropanoic acid, α -methoxy-4-[2-[[(1R)-2-methoxy-1-methyl-2-oxoethyl](phenylmethyl)amino]-2-oxoethoxy]-, (α S)-

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-97-1 HCAPLUS

Absolute stereochemistry.

RN 816465-98-2 HCAPLUS

Absolute stereochemistry.

RN 816465-99-3 HCAPLUS

RN 816466-00-9 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(2-chlorophenyl)methyl]heptylamino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-01-0 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2-[heptyl[[4-(1methylethyl)phenyl]methyl]amino]-2-oxoethoxy]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-03-2 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2-[[(2-methoxyphenyl)methyl][[4-(1-methylethyl)phenyl]methyl]amino]-2-oxoethoxy]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-04-3 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(2-chlorophenyl)methyl][(4chlorophenyl)methyl]amino]-2-oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

RN 816466-05-4 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(4-chlorophenyl)methyl]](2,3-dimethoxyphenyl)methyl]amino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-06-5 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[(1,3-benzodioxol-5-ylmethyl)[(4ethoxyphenyl)methyl]amino]-2-oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-07-6 HCAPLUS

RN 816466-08-7 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[(1,3-benzodioxol-5-ylmethyl)[[3-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]- α -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-09-8 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(3,5-dimethoxyphenyl)methyl]][(4ethoxyphenyl)methyl]amino]-2-oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-10-1 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(3-\text{chloro}-4-\text{fluorophenyl})\,\text{methyl}][(4-\text{ethoxyphenyl})\,\text{methyl}]\,\text{amino}]-2-\text{oxoethoxy}]-\alpha-\text{ethoxy-},$ (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-11-2 HCAPLUS

Absolute stereochemistry.

RN 816466-12-3 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2-[(1-methylethyl) (phenylmethyl) amino]-2-oxoethoxy]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-13-4 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[bis(phenylmethyl)amino]-2-oxoethoxy]- α -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

RN 816466-14-5 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[bis(2-methoxyethyl)amino]-2-oxoethoxy]-\alpha-ethoxy-, (<math>\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-15-6 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[heptyl[[4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]-, (α S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-16-7 HCAPLUS

Absolute stereochemistry.

$$F_3C$$
 $CH_2)_6$
 $CH_2)_6$
 OEt

RN 816466-17-8 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[[(4-ethylphenyl)methyl]heptylamino]-2-oxoethoxy]-, (α S)- (9CI)

(CA INDEX NAME)

Absolute stereochemistry.

RN 816466-18-9 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-(1,1-dimethylethyl)phenyl]methyl]heptylamino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-19-0 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[heptyl[[4-(2-methylpropyl)phenyl]methyl]amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-20-3 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2-[heptyl(phenylmethyl)amino]-2-oxoethoxy]-, (αS)- (9CI) (CA INDEX NAME)

RN 816466-21-4 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[[(4-fluorophenyl)methyl]heptylamino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-22-5 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(4-chlorophenyl)methyl]heptylamino]-2-oxoethoxy]-\alpha-ethoxy-, (<math>\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-23-6 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(4-bromophenyl)methyl]heptylamino]-2oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-24-7 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[butyl[(4-ethylphenyl)methyl]amino]-2-oxoethoxy]-\alpha-ethoxy-, (<math>\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-25-8 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[butyl[[4-(1,1dimethylethyl)phenyl]methyl]amino]-2-oxoethoxy]-α-ethoxy-,
(αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-26-9 HCAPLUS

Absolute stereochemistry.

RN 816466-27-0 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[butyl(phenylmethyl)amino]-2oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-28-1 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[butyl[(4-fluorophenyl)methyl]amino]-2-

oxoethoxy]- α -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-29-2 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(4-bromophenyl)methyl]butylamino]-2-oxoethoxy]-\alpha-ethoxy-, (<math>\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-30-5 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[butyl[(2,4-difluorophenyl)methyl]amino]-2-oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-31-6 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(4-chlorophenyl)methyl][[4-(trifluoromethoxy)phenyl]methyl]amino]-2-oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

RN 816466-32-7 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(4-chlorophenyl)methyl][(4ethylphenyl)methyl]amino]-2-oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-33-8 HCAPLUS

Absolute stereochemistry.

RN 816466-34-9 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(4-chlorophenyl)methyl](phenylmethyl)amino]-2-oxoethoxy]- α -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

RN 816466-35-0 HCAPLUS

Absolute stereochemistry.

RN 816466-36-1 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(4-bromophenyl)methyl]](4-chlorophenyl)methyl]amino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-37-2 HCAPLUS

RN 816466-38-3 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2-[[(4-methylphenyl)methyl][[4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-39-4 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[[(4-methylphenyl)methyl][[4-(trifluoromethoxy)phenyl]methyl]amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-40-7 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2-[[(4ethylphenyl)methyl][(4-methylphenyl)methyl]amino]-2-oxoethoxy]-,
(αS)- (9CI) (CA INDEX NAME)

RN 816466-41-8 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[[4-(1,1-dimethylethyl)phenyl]methyl][(4-methylphenyl)methyl]amino]-2-oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-42-9 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2-[[(4-methylphenyl)methyl][[4-(2-methylpropyl)phenyl]methyl]amino]-2-oxoethoxy]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-43-0 HCAPLUS

RN 816466-44-1 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2-[[(4-fluorophenyl)methyl][(4-methylphenyl)methyl]amino]-2-oxoethoxy]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-45-2 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(4-chlorophenyl)methyl][(4-methylphenyl)methyl]amino]-2-oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816466-46-3 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(4-bromophenyl)methyl][(4methylphenyl)methyl]amino]-2-oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

RN 816466-47-4 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(2,4-difluorophenyl)methyl][(4-methylphenyl)methyl]amino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 817181-61-6 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-(1,1-dimethylethyl)cyclohexyl]amin o]-2-oxoethoxy]-<math>\alpha$ -methoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 817181-62-7 HCAPLUS

CN Benzenepropanoic acid, $3-[2-[[4-(1,1-dimethylethyl)cyclohexyl]amin o]-2-oxoethoxy]-<math>\alpha$ -methoxy-, (α S)- (9CI) (CA INDEX NAME)

RN 817181-63-8 HCAPLUS

Absolute stereochemistry.

Absolute stereochemistry.

(CA INDEX NAME)

RN 816465-10-8 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(2,4-difluorophenyl)methyl]nonylamin
o]-2-oxoethoxy]-α-ethoxy-, ethyl ester, (αS)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

RN 816465-14-2 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(2,4-difluorophenyl)methyl][(4-ethylphenyl)methyl]amino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, ethyl ester, (αS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-16-4 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2-[methyl(phenylmethyl)amino]-2-oxoethoxy]-, ethyl ester, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-19-7 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[heptyl](1-methyl-1H-indol-2-yl)methyl]amino]-2-oxoethoxy]-, ethyl ester, (α S)-(9CI) (CA INDEX NAME)

RN 816465-22-2 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(2,3-dimethoxyphenyl)methyl]heptylam ino]-2-oxoethoxy]- α -ethoxy-, ethyl ester, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-24-4 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[buty1](2,3-dimethoxyphenyl)methyl]amino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, ethyl ester, (αS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-27-7 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(4-\text{chlorophenyl})\text{methyl}][[4-(1-\text{methylethyl})\text{phenyl}]\text{methyl}]\text{amino}]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, ethyl ester, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-34-6 HCAPLUS
CN Benzenepropanoic acid, α-ethoxy-4-[2-[ethyl[(2-fluorophenyl)methyl]amino]-2-oxoethoxy]-, ethyl ester, (αS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-36-8 HCAPLUS CN Benzenepropanoic acid, 4-[2-[butyl[[4- (phenylmethoxy)phenyl]methyl]amino]-2-oxoethoxy]- α -ethoxy-, ethyl ester, (α S)- (9CI) (CA INDEX NAME)

RN 816465-39-1 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[bis[(4-chlorophenyl)methyl]amino]-2-oxoethoxy]-\alpha-ethoxy-, ethyl ester, (<math>\alpha S$)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-46-0 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(4-\text{chlorophenyl})\text{methyl}][[4-(1,1-\text{dimethylethyl})\text{phenyl}]\text{methyl}]\text{amino}]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, ethyl ester, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-49-3 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(4-chlorophenyl)methyl][[4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]-α-ethoxy-, ethyl ester, (αS)- (9CI) (CA INDEX NAME)

17 272 72 4 70

RN 816465-52-8 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[bis[[4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, ethyl ester, (αS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-56-2 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[ethyl(phenylmethyl)amino]-2-oxoethoxy]-, ethyl ester, (α S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 816465-58-4 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[[4-(1,1-dimethylethyl)phenyl]methyl]ethylamino]-2-oxoethoxy]-α-ethoxy-, ethyl ester, (αS)- (9CI) (CA INDEX NAME)

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t-Bu Et OEt
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ICM C07C231-00
IC
CC
    25-9 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
    Section cross-reference(s): 1, 63
    phenylpropanoic acid prepn PPAR alpha agonist antidiabetic
ST
IT
    Diabetes mellitus
        (non-insulin-dependent; preparation of phenylpropanoic acid derivs.
        as PPAR\alpha agonists)
IT
     Antidiabetic agents
    Antihypertensives
    Antiobesity agents
    Atherosclerosis
    Drug delivery systems
    Human
    Hypertension
     Obesity
       Peroxisome proliferators
        (preparation of phenylpropanoic acid derivs. as PPARa
        agonists)
IT
    Peroxisome proliferator-activated receptors
        (α; preparation of phenylpropanoic acid derivs. as PPARα
        agonists)
IT
     Peroxisome proliferator-activated receptors
        (\gamma; preparation of phenylpropanoic acid derivs. as PPAR\alpha
        agonists)
     89573-38-6P
                   89573-39-7P
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                    638190-76-8P
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     638190-83-7P 638190-84-8P
                                  638190-86-0P
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     638191-02-3P 638191-03-4P 638191-04-5P
     638191-08-9P 638191-09-0P 638191-10-3P
     638191-11-4P 638191-24-9P 816465-03-9P
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816465-07-3P 816465-11-9P 816465-15-3P 816465-17-5P 816465-20-0P 816465-23-3P

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     816465-57-3P
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        (preparation of phenylpropanoic acid derivs. as PPARα
        agonists)
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     Difluorobenzyl) nonanamide
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     816465-56-2P 816465-58-4P
        (preparation of phenylpropanoic acid derivs. as PPAR\alpha
        agonists)
L32 ANSWER 3 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         2004:546469 HCAPLUS
DOCUMENT NUMBER:
                         141:106266
TITLE:
                         Preparation of phenylpropanoic acids
                         derivatives as selective PPARa
                         modulators
INVENTOR(S):
                         Lindstedt Alstermark, Eva-Lotte; Olsson, Anna
                         Christina; Li, Lanna; Aurell, Carl-Johan;
                         Minidis, Anna; Yousefi-Salakdeh, Esmail;
                         Dahlstrom, Mikael Ulf Johan
PATENT ASSIGNEE(S):
                         Astrazeneca AB, Swed.; Astrazeneca UK Limited
SOURCE:
                         PCT Int. Appl., 43 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT:
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PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004056748	A1	20040708	WO 2003-GB5602	2003 1219
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RW: BW, GH, GM, AM, AZ, BY, CZ, DE, DK,	KE, LS KG, KZ EE, ES SE, SI	, MW, MZ, , MD, RU, , FI, FR, , SK, TR,	SD, SL, SZ, TZ, UG, TJ, TM, AT, BE, BG, GB, GR, HU, IE, IT, BF, BJ, CF, CG, CI,	CH, CY, LU, MC,
CA 2508851	AA	20040708	CA 2003-2508851	2003 1219
AU 2003290309	A1	20040714	< AU 2003-290309	2003 1219
US 2005131068	A1	20050616	< US 2003-499893	2003 1219
EP 1572626	A1	20050914	< EP 2003-782668	2003 1219
MC, PT, IE,			<pre></pre>	NL, SE,
EE, HU, SK BR 2003017458	A	20051116	BR 2003-17458	2003 1219
CN 1753862	A	20060329	< CN 2003-80109895	2003 1219
JP 2006511572	Т2	20060406	< JP 2004-561668	2003 1219
JP 3786945 US 2005282822	B2 A1	20060621 20051222	< US 2004-26806	
NO 2005002914	A	20050719	< NO 2005-2914	2004 1230
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USHA SHRESTHA EIC 1600 REM 1A64

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JP 2006045240	A2	20060216	JP	2005-253346		
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						2004
						0617
			US	2005-499261	A2	
						2005

OTHER SOURCE(S): CASREACT 141:106266; MARPAT 141:106266

0304

GI

AB Title compds. I [R1 = C1, CF3, CF30; R2 = H, F; R3 = alkyl] and their pharmaceutically acceptable salts, prodrugs were prepared For example, amidation of N-butyl-N-[2-fluoro-4-(trifluoromethyl)benzyl]amine, e.q., prepared from Et (2S) -2-ethoxy-3-(4-hydroxyphenyl) propanoate in 3 steps, and $\{4-[(2S)-2,3-diethoxy-3-oxopropyl]phenoxy\}$ acetic acid, followed by hydrolysis afforded compound (S)-I [R1 = CF3; R2 = F; R3 = butyl] in 72% yield. Compds. I have EC50 values <0.1 μ mol/L for PPAR α , e.g., the EC50 value of compound (S)-I [R1 = CF3; R2 = F; R3 = butyl] was 0.001 μmol/L. Of notes, compds. I exhibit improved metabolic stability (in vitro), promising toxicol. profile (no data provided) and particular compds. have the ratio of the EC50(PPAR γ):EC50(PPAR γ) <150:1. Compds. I are claimed useful for the treatment of hypertension, diabetes , etc.

TT 719277-13-1P 719277-14-2P 719277-15-3P 719277-16-4P 719277-17-5P

(preparation of phenylpropanoic acids derivs. as selective $\mbox{\sc PPAR}\alpha$ modulators for treatment of dyslipidemia)

RN 719277-13-1 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[butyl[[2-fluoro-4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]- α -ethoxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 719277-14-2 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[(4-chlorophenyl)methyl]ethylamino]-2oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX NAME)

1110

RN 719277-15-3 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[ethyl[[4-(trifluoromethoxy)phenyl]methyl]amino]-2-oxoethoxy]-, (α S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 719277-16-4 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[ethyl[[4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]-, (α S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 719277-17-5 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[buty1[[4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, (αS) - (9CI) (CA INDEX NAME)

IT 719277-19-7P 719277-20-0P 719277-23-3P 719277-24-4P 765303-27-3P

(preparation of phenylpropanoic acids derivs. as selective PPAR α modulators for treatment of dyslipidemia)

RN 719277-19-7 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[butyl[[2-fluoro-4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]- α -ethoxy, ethyl ester, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 719277-20-0 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[(4-\text{chlorophenyl})\text{methyl}]\text{ethylamino}]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, ethyl ester, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 719277-23-3 HCAPLUS

RN 719277-24-4 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[ethyl[[4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]-, ethyl ester, (αS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 765303-27-3 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[butyl[[4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, ethyl ester, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IC ICM C07C235-20

ICS A61K031-16

CC 25-17 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

Section cross-reference(s): 1, 63

ST phenylpropanoic acid prepn PPAR alpha modulator prodrug; antihypertensive phenylpropanoic acid prepn PPAR alpha modulator prodrug; antidiabetic agent phenylpropanoic acid prepn PPAR alpha modulator prodrug

IT **Peroxisome** proliferators

(medicaments with; preparation of phenylpropanoic acids derivs. as selective PPAR α modulators for treatment of dyslipidemia)

IT Antidiabetic agents

Antihypertensives

Antiobesity agents

Drug delivery systems

Human

(preparation of phenylpropanoic acids derivs. as selective PPAR α modulators for treatment of dyslipidemia)

IT Peroxisome proliferator-activated receptors

(preparation of phenylpropanoic acids derivs. as selective PPAR α modulators for treatment of dyslipidemia)

IT Atherosclerosis

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Diabetes mellitus
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Hypertension

Obesity

(treatment of; preparation of phenylpropanoic acids derivs. as selective PPAR α modulators for treatment of dyslipidemia)

IT 719277-13-1P 719277-14-2P 719277-15-3P

719277-16-4P 719277-17-5P

(preparation of phenylpropanoic acids derivs. as selective PPAR α modulators for treatment of dyslipidemia)

IT 549501-67-9P 549501-68-0P 719277-18-6P **719277-19-7P**

719277-20-0P 719277-21-1P 719277-22-2P

719277-23-3P 719277-24-4P 765303-27-3P

(preparation of phenylpropanoic acids derivs. as selective PPAR α modulators for treatment of dyslipidemia)

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 4 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:412940 HCAPLUS

DOCUMENT NUMBER:

141:7105

TITLE:

Preparation of thienyl- and

thiazolecarboxamides as inhibitors of ROCK,

ERK, GSK, and AGC protein kinases

INVENTOR (S):

Cao, Jingrong; Gao, Huai; Green, Jeremy;

Marhefka, Craig

PATENT ASSIGNEE(S):

Vertex Pharmaceuticals Incorporated, USA

SOURCE:

PCT Int. Appl., 222 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.			KIND DATE		APPLICATION NO.						DA'	ΓE				
WO	2004	 04041813			A1 20040521			WO 2003-US34319						200 100		
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AU	AU 2003288956 A1					2004	0607	< AU 2003-288956					200 103	03		

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US 20	04122016	AI	20040624	US 2003-696862	2002
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77 1 5	-0600		20050002	<	
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				WO 2003-US34319	W
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					1030

OTHER SOURCE(S): MARPAT 141:7105 GI

USHA SHRESTHA EIC 1600 REM 1A64

Title compds. [I; B = Q4, Q5, Q6; R1 = halo, cyano, NO2, VmR; Z1, Z3 = N, CRz; Z2 = N, CR1; Rz = halo, cyano, NO2, UnR'; R2 = UnR'; X1, X2 = CR4, N; R4 = halo, cyano, NO2, VmR; U, V = (substituted) alkylidene optionally interrupted by NR, O, S, CS, SO, SO2, CO2, etc.; m, n = 0, 1; R = H, (substituted) aliphatyl; R' = R, (unsatd.) (heterocyclic) mono- or bicyclic ring; Q1 = CO, SO2, CONR, SO2NR; R3 = Q2Ar1; R2Q1R3 = atoms to form a cyclic group; Ar1 = (unsatd.) (heterocyclic) mono- or bicyclic ring; with provisos], were prepared Thus, 2-chloro-N-(4-pyridin-4-ylthiazol-2-yl)acetamide and N-methylaniline were stirred overnight in DMF at 70° to give 2-(methylphenylamino)-N-(4-pyridin-4-ylthiazol-2-yl)acetamide. Certain I were shown to inhibit ROCK I, ERK2, GSK3, and PKA with Ki <1 μM.

IT 692885-81-7P 692885-86-2P

(claimed compound; preparation of thiophene- and thiazolecarboxamides as inhibitors of ROCK, ERK, GSK, and AGC protein kinases)

RN 692885-81-7 HCAPLUS

CN Benzeneacetamide, 3-[2-oxo-2-(4-piperidinylamino)ethoxy]-N-[4-(4-pyridinyl)-2-thiazolyl]- (9CI) (CA INDEX NAME)

RN 692885-86-2 HCAPLUS

CN Benzeneacetamide, 3-[2-[(1-ethyl-4-piperidinyl)amino]-2-oxoethoxy]-N-[4-(4-pyridinyl)-2-thiazolyl]- (9CI) (CA INDEX NAME)

IC ICM C07D409-04

ICS C07D417-04; C07D417-14; C07D409-14

CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1, 27, 63

IT Allergy inhibitors

Anti-AIDS agents

Anti-inflammatory agents

Antianginal agents

Antiarteriosclerotics

Antiasthmatics

Antidiabetic agents

Antihypertensives

Antipsychotics

Antitumor agents

Antiviral agents

Cardiovascular agents

Cytotoxic agents

Drug delivery systems

 $\mathcal{A}(\mathcal{M}) :=$

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Human
    Nervous system agents
        (preparation of thiophene- and thiazolecarboxamides as inhibitors of
        ROCK, ERK, GSK, and AGC protein kinases)
IT
     AIDS (disease)
    Allergy
    Alopecia
    Arteriosclerosis
    Asthma
    Atherosclerosis
    Autoimmune disease
    Bone, disease
     Cystic fibrosis
       Diabetes mellitus
    Heart, disease
    Hypertension
     Immune disease
     Inflammation
     Ischemia
    Multiple sclerosis
    Neoplasm
    Osteoporosis
    Psoriasis
    Schizophrenia
        (treatment; preparation of thiophene- and thiazolecarboxamides as
        inhibitors of ROCK, ERK, GSK, and AGC protein kinases)
IT
     692878-12-9P
                    692878-18-5P
                                    692878-23-2P
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    692878-33-4P
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692884-92-7P

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693025-22-8P
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(claimed compound; preparation of thiophene- and thiazolecarboxamides as inhibitors of ROCK, ERK, GSK, and AGC protein kinases)

REFERENCE COUNT:

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 5 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

7

ACCESSION NUMBER:

2004:392321 HCAPLUS

DOCUMENT NUMBER:

140:406826

TITLE:

Preparation of N-benzylpiperazine derivatives

as chemokine receptor CCR1 antagonists useful

as immunomodulatory agents

INVENTOR(S):

Blumberg, Laura C.; Brown, Matthew F.; Gaweco,

Anderson S.; Gladue, Ronald P.; Hayward, Matthew M.; Lundquist, Gregory D.; Poss,

Christopher S.; Shavnya, Andrei

PATENT ASSIGNEE(S):

Pfizer Inc, USA

SOURCE:

U.S. Pat. Appl. Publ., 58 pp.

CODEN: USXXCO

DOCUMENT TYPE:

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				2002
				1030
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MARPAT 140:406826

GΙ

AB The present invention relates to compds. of the formula (I) and the pharmaceutically acceptable forms thereof [m = 0-5; n, p =0-2; q = 0-4; X = 0, S, CH2, (un) substituted NH; Y = C6-10 aryl, C2-9 heteroaryl; R1 = H, HO, halo, C1-8 alkyl, C1-8 alkoxy, HO-C1-8 alkyl, cyano, NH2, H2N-C1-8 alkyl, CO2H, C1-8 alkyl-CO, C1-8 alkyl-CO-C1-8 alkyl, CONH2, or H2NCO-C1-8 alkyl; R2, R3 = H, oxo, C1-8 alkyl, C3-8 cycloalkyl-C1-8 alkyl, C6-10 aryl, C6-10 aryl-C1-8 alkyl, HO-C1-8 alkyl, C1-8 alkyl-O-C1-8 alkyl, H2N-C1-8 alkyl, C1-8 alkyl-NH-C1-8 alkyl, (C1-8 alkyl)2N-C1-8 alkyl, C2-9 heterocyclyl-C1-8 alkyl, C3-8 cycloalkyl-NH-C1-8 alkyl, C1-8 alkyl-CO-NH-C1-8 alkyl-O-CO-NH-C1-8 alkyl, H2NCO-NH-C1-8 alkyl, C1-8 alkyl-SO2NH-C1-8 alkyl, C2-9 heteroaryl-C1-8 alkyl, H2NCO, H2NCO-C1-8 alkyl; R4 = (HO2C)(H2N)-C1-8 alkyl, (HO2C)[(C1-8)alkyl) NH] -C1-8 alkyl, (HO2C) [(C1-8 alkyl) 2N] -C1-8 alkyl, (HO2C-C1-8 alkyl) (C1-8 alkyl) N, (HO2C-C1-8 alkyl) (C1-8 alkyl)N-C1-8 alkyl, (HO2C-C1-8 alkyl)(C1-8 alkyl-SO2)N, (HO2C-C1-8 alkyl) (C1-8 alkyl-SO2) N-C1-8 alkyl, (HO2C-C1-8 alkyl) (C1-8 alkyl-CO) N, etc.; R5 = H, HO, halo, cyano, CO2H, H2N, C1-8 alkyl-NH, (C1-8 alkyl)2N, C1-8 alkyl, C1-8 alkyl-O, HO-C1-8 alkyl, C1-8 alkyl-NH-C1-8 alkyl, (C1-8 alkyl)2N-C1-8 alkyl, etc.]. Moreover, the present invention is also directed at pharmaceutical compns. comprising the compound I and a pharmaceutically acceptable carrier. Furthermore, the present invention is directed at methods of using the herein described compds. and compns. for treating or preventing a disorder or condition that can be treated or prevented by antagonizing the CCR1 receptor in a mammal. Particularly, disclosed is a method of treating or preventing a disorder or condition selected from the group consisting of fibrosis, Alzheimer's disease, conditions associated with leptin production, sequelae associated with cancer, cancer metastasis, diseases or conditions related to production of cytokines at inflammatory sites, and tissue damage caused by inflammation induced by infectious agents, wherein the method comprises administering to a mammal in need of such treatment or prevention a pharmaceutically effective amount of the compound I or a pharmaceutically acceptable form thereof. The compds. I are potent and selective inhibitors of MIP- 1α (CCL3) binding to its receptor CCR1 found on inflammatory and immunomodulatory cells (preferably leukocytes and lymphocytes). [2-[3-[4-(4-fluorobenzyl)-(2R,5S)-2,5dimethylpiperazin-1-yl]-3-oxopropyl]-5-methylphenoxy]acetic acid was condensed with methanesulfonamide in CH2Cl2 at room temperature for 18 h using 4-dimethylaminopyridine and 1-ethyl-3-(3dimethylaminopropyl) carbodiimide hydrochloride to give N-[[2-[3-[4-(4-fluoro-benzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-3-oxo-propyl]-5-methylphenoxy]acetyl]methanesulfonamide. All the compds. I inhibited MIP-1 α (and the related chemokines shown to interact with CCR1) induced chemotaxis of THP-1 cells and human leukocytes with IC50 of <10 μM .

Absolute stereochemistry.

RN 519173-15-0 HCAPLUS
CN Acetamide, 2-[2-[3-[(2R,5S)-4-[(4-fluorophenyl)methyl]-2,5-dimethyl-1-piperazinyl]-3-oxopropyl]-5-methoxyphenoxy]-N-

(methylsulfonyl) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IC ICM A61K031-495

INCL 514255010

CC 28-17 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1

IT Diabetes mellitus

(non-insulin-dependent; preparation of N-benzylpiperazine derivs. as chemokine receptor CCR1 antagonists useful as immunomodulatory agents)

IT Adenoviridae

Alzheimer's disease

Anorexia

Anti-Alzheimer's agents

Antidiabetic agents

Antimalarials

Antiobesity agents

Antitumor agents

Antiviral agents

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Bone resorption
     Cachexia
     Cytomegalovirus
     Fibrosis
     Fungicides
     Human herpesvirus
     Hyperplasia
     Immunomodulators
     Lyme disease
     Malaria
     Mammary gland, neoplasm
     Obesity
        (preparation of N-benzylpiperazine derivs. as chemokine receptor
        CCR1 antagonists useful as immunomodulatory agents)
     519171-77-8P, N-[[2-[3-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-
IT
     dimethylpiperazin-1-yl]-3-oxopropyl]-5-
     methylphenoxy]acetyl]methanesulfonamide
                                               519171-81-4P,
     N-[[5-Chloro-2-[2-[4-(4-fluoro-benzyl)-(2R,5S)-2,5-dimethyl-
     piperazin-1-yl]-2-oxo-ethoxy]-phenoxy]-acetyl]-methanesulfonamide
     hydrochloride 519171-92-7P, [5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-
     (2R,5S)-2,5-Dimethyl-Piperazin-1-yl]-2-Oxo-Ethoxy]-
                                    519171-96-1P, 1-[5-Chloro-2-[2-[4-
     Phenylsulfamoyl]-Acetic Acid
     (4-Fluoro-Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-yl] -2-Oxo-
     Ethoxy]-Benzyl]-3-(2-Methylbenzenesulfonyl)-Urea 519171-98-3P,
     (2-Methylbenzenesulfonyl)-Carbamic acid 5-Chloro-2-[2-[4-(4-Fluoro-
     Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-yl] -2-Oxo-Ethoxyl -Benzyl
             519171-99-4P, 2-[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-
     (2R,5S)-2,5-Dimethyl-Piperazin-1-yl]-2-Oxo-Ethoxy]-
     Benzylsulfamoyl]-Propionic Acid
                                      519172-00-0P,
     N-[[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-Dimethyl-]]
     Piperazin-1-yl]-2-Oxo-Ethoxy]-Benzyloxy]-Acetyl]-
                         519172-04-4P, 1-Acetyl-3-[5-Chloro-2-[2-[4-(4-
     Methanesulfonamide
     Fluoro-Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-yl] -2-Oxo-Ethoxy] -
     Benzyl]Sulfamide 519172-06-6P, [5-Chloro-2-[2-[4-(4-Fluoro-
     Benzyl) - (2R,5S) - 2,5-Dimethyl-Piperazin-1-yl] - 2-Oxo-Ethoxy] -
     Benzylideneaminooxy]-Acetic Acid 519172-07-7P,
     N-[[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-Dimethyl-
     Piperazin-1-yl]-2-Oxo-Ethoxy]-Phenyl]-Acetyl]-Methanesulfonamide
     519172-09-9P, N-[[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-
     Dimethyl-Piperazin-1-yl]-2-Oxo-Ethoxy]-Phenyl]-Acetyl]-Sulfamide
     519172-10-2P, N-[3-[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-
     Dimethyl-Piperazin-1-yl]-2-Oxo-Ethoxy]-Phenyl]-Propionyl]-
                          519172-14-6P, 3-[5-Chloro-2-[2-[4-(4-Fluoro-
     Methanesulfonamide
     Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-yl] -2-Oxo-Ethoxy] -Phenyl] -
     Acrylic Acid
                    519172-16-8P, [5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-
     (2R,5S)-2,5-Dimethyl-Piperazin-1-yl]-2-Oxo-Ethoxy]-
     Benzenesulfonylamino] - Acetic Acid hydrochloride
                                                       519172-20-4P,
     5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-Dimethyl-Piperazin-
     1-yl]-2-Oxo-Ethoxy]-N-[(2-Propylamino)Carbonyl]-Benzenesulfonamide
     519172-21-5P, 5-Chloro-N-(2,2-Dimethyl-Propionyl)-2-[2-[4-(4-
     Fluoro-Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-yl] -2-Oxo-Ethoxy] -
     Benzenesulfonamide
                          519172-22-6P, 5-Chloro-2-[2-[4-(4-Fluoro-
     Benzyl) - (2R,5S) - 2,5-Dimethyl-Piperazin-1-yl] - 2-Oxo-Ethoxy] - N-(2-
     Hydroxy-2-Methyl-Propionyl)-Benzenesulfonamide
                                                       519172-24-8P,
     N-Acetyl-1-[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-
     Dimethyl-Piperazin-1-yl]-2-Oxo-Ethoxy]-Phenyl]-Methanesulfonamide
     519172-30-6P, 1-[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-
     Dimethyl-Piperazin-1-yl]-2-Oxo-Ethoxy]-Phenyl]-N-(2-Hydroxy-2-
     Methyl-Propionyl)-Methanesulfonamide 519172-33-9P,
     N-[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R)-2-Methyl-Piperazin-1-
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yl]-2-Oxo-Ethoxy]-Pyridin-3-yl]-Succinamic Acid 519172-37-3P,
N-[[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-Dimethyl-
Piperazin-1-yl]-2-0xo-Ethoxy]-Pyridin-3-yl]-Acetyl]-
Methanesulfonamide 519172-45-3P, 3-[5-Chloro-2-[2-[4-(4-Fluoro-
Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-yl] -2-Oxo-Ethoxy] -Pyridin-
3-yl]-Propionic Acid
                       519172-49-7P, [[5-Chloro-2-[2-[4-(4-Fluoro-
Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-yl] -2-Oxo-Ethylamino] -
Pyridine-3-Carbonyl]-Amino]-Acetic Acid
                                         519172-55-5P,
2-[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-Dimethyl-
Piperazin-1-yl]-2-Oxo-Ethoxy]-Phenylsulfanyl]-2-Methyl-Propionic
       519172-59-9P, 2-[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-
2,5-Dimethyl-Piperazin-1-yl]-2-Oxo-Ethoxy]-Benzenesulfonyl]-2-
                        519172-62-4P, [5-Chloro-2-[2-[4-(4-Fluoro-
Methyl-Propionic Acid
Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-yl] -2-Oxo-Ethoxy] -
Phenylmethanesulfonyl]-Acetic Acid
                                    519172-65-7P,
N-[3-[3-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-Dimethyl-Piperazin-1-
yl]-2-0xo-Ethoxy]-6-Methyl-Pyridin-2-yl]-Propionyl]-
Methanesulfonamide
                   519172-70-4P, 2-Amino-3-[5-Chloro-2-[2-[4-(4-
Fluoro-Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-Yl] -2-Oxo-Ethoxy] -
Phenyl]-Propionic Acid 519172-73-7P, [[5-Chloro-2-[2-[4-(4-
Fluoro-Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-yl] -2-Oxo-Ethoxy] -
Benzyl]-Methyl-Amino]-Acetic Acid
                                    519172-75-9P,
2-[4-Chloro-2-(2H-Tetrazol-5-ylmethoxy)-Phenoxy]-1-[4-(4-Fluoro-
Benzyl)-(2R,5S)-2,5-Dimethyl-Piperazin-1-yl]-Ethanone
519172-77-1P, 2-[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-
Dimethyl-Piperazin-1-yl]-2-Oxo-Ethoxy]-Phenoxy]-Nicotinic Acid
hydrochloride 519172-78-2P, [2-[2-[(2R)-2-Carbamoylmethyl-4-(4-
Fluoro-Benzyl)-Piperazin-1-yl]-2-Oxo-Ethoxy]-5-Chloro-Phenoxy]-
Acetic Acid 519172-86-2P, (4S)-4-[5-Chloro-2-[2-[4-(4-Fluoro-
Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-yl] -2-Oxo-Ethoxy] -
Phenoxy]-1-Methyl-Pyrrolidine-(2S)-2-Carboxylic Acid
dihydrochloride 519172-87-3P, 1-[5-Chloro-2-[2-[4-(4-Fluoro-
Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-yl] -2-Oxo-Ethoxy] -Phenyl] -
N-(Methoxycarbonyl)-Methanesulfonamide
                                         519172-88-4P,
6-[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-Dimethyl-
Piperazin-1-yl]-2-Oxo-Ethoxy]-Phenoxymethyl]-Nicotinic Acid
519172-90-8P, 5-[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-
Dimethyl-Piperazin-1-yl]-2-Oxo-Ethoxy]-Phenyl]-5-Oxo-Pentanoic
       519172-94-2P, 5-[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-
2,5-Dimethyl-Piperazin-1-yl]-2-Oxo-Ethoxy]-Phenyl]-Dihydro-Furan-2-
      519172-97-5P, 4-[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-
2,5-Dimethyl-Piperazin-1-yl]-2-Oxo-Ethoxy]-Pyridin-3-ylamino]-
Butyric Acid acetate
                      519173-03-6P, [5-Chloro-2-[2-[4-(4-Fluoro-
Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-yl] -2-Oxo-Ethoxy] -Pyridin-
3-ylamino]-Acetic Acid acetate 519173-10-5P,
1-[5-Chloro-2-[2-[4-(4-Fluoro-Benzyl)-(2R,5S)-2,5-Dimethyl-
Piperazin-1-yl]-2-Oxo-Ethoxy]-Phenyl]-2-(1H-Tetrazol-5-yl)-
Ethanone hydrochloride 519173-13-8P, 1-[5-Chloro-2-[2-[4-(4-
Fluoro-Benzyl) - (2R,5S) -2,5-Dimethyl-Piperazin-1-yl] -2-Oxo-Ethoxy] -
Phenyl]-3-(1H-Tetrazol-5-yl)-Propan-1-One hydrochloride
519173-14-9P, [2-[3-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-3-oxopropyl]-5-methoxyphenoxylacetic acid
519173-15-0P, N-[[2-[3-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-3-oxopropyl]-5-
methoxyphenoxy]acetyl]methanesulfonamide
                                           519173-16-1P,
[5-Chloro-2-[3-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
yl]-3-oxopropyl]phenoxy]acetic acid 519173-17-2P,
[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
yl]-2-oxoethoxy]phenyl]-oxoacetic acid 519173-18-3P,
[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-
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oxoethoxy]phenoxy]acetic acid 519173-19-4P, N-[[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2oxoethoxy]phenoxy]acetyl]methanesulfonamide 519173-20-7P, [5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1yl]-2-oxoethoxy]phenoxy]acetic acid 519173-21-8P, [5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-519173-22-9P, [5-Chloro-2-[2-[(2R)oxoethoxy]phenoxy]acetic acid 2-ethyl-4-(4-fluorobenzyl)piperazin-1-yl]-2oxoethoxy]phenoxy]acetic acid 519173-23-0P, N-[[5-Bromo-2-[2-[4-(4-fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2oxoethoxy]phenoxy]acetyl]methanesulfonamide 519173-24-1P, N-[[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-oxoethoxy]phenoxy]acetyl]methanesulfonamide 519173-25-2P, N-[[5-Chloro-2-[2-[(2R)-2-ethyl-4-(4-fluorobenzyl)piperazin-1-yl]-2-oxoethoxy]phenoxy]acetyl]methanesulfonamide 519173-26-3P, 2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-2-methylpropionic acid 519173-27-4P, 4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]butyric acid 519173-28-5P, 6-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]pyridine-2-carboxylic acid 519173-29-6P, [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]difluoroacetic acid 519173-30-9P, (2R)-2-Amino-4-[5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]butyric acid 519173-31-0P, [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2methylpiperazin-1-yl]-2-oxoethoxy]phenoxy]difluoroacetic acid 519173-32-1P, 4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2methylpiperazin-1-yl]-2-oxoethoxy]phenoxy]butyric acid 519173-33-2P, 2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2methylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-2-methylpropionic acid 519173-34-3P, (2S)-2-Amino-4-[5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]butyric 519173-35-4P, 2-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-2-methylpropionic 519173-36-5P, [5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]difluoroacetic acid 519173-37-6P, 2-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R)-2methylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-2-methylpropionic acid 519173-38-7P, [5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R)-2methylpiperazin-1-yl]-2-oxoethoxy]phenoxy]difluoroacetic acid 519173-39-8P, (2S)-2-Amino-4-[5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-oxoethoxy]phenoxy]butyric acid 519173-40-1P, (2S)-2-Amino-4-[5-bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]butyric acid 519173-41-2P, 4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]pyridine-2carboxylic acid 519173-42-3P, N-[(2R)-2-Amino-4-[5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2oxoethoxy]phenoxy]butyryl]methanesulfonamide 519173-43-4P, 2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxymethyl]thiazole-4-carboxylic acid 519173-44-5P, 3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxymethyl]furan-2-519173-45-6P, 5-[5-Chloro-2-[2-[4-(4carboxylic acid fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2oxoethoxy]phenoxymethyl]furan-2-carboxylic acid 519173-46-7P, 3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxymethyl]thiophene-2-carboxylic acid 519173-47-8P, 2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-

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dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxymethyl]furan-3-
carboxylic acid 519173-48-9P, 5-[5-Chloro-2-[2-[4-(4-
fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2-
oxoethoxy]phenoxymethyl]thiophene-2-carboxylic acid
519173-49-0P, 3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenoxymethyl]furan-2-carboxylic
       519173-50-3P, 3-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenoxymethyl]furan-2-carboxylic
       519173-51-4P, 5-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-
2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-5-(2-
methoxyethyl)pyrimidine-2,4,6-trione 519173-53-6P,
5-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
1-yl]-2-oxoethoxy]phenoxy]-5-methylpyrimidine-2,4,6-trione
519173-55-8P, 5-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-5-ethylpyrimidine-
2,4,6-trione
               519173-58-1P, (2R)-2-[5-Chloro-2-[2-[4-(4-
fluorobenzyl) - (2R) -2-methylpiperazin-1-yl] -2-
oxoethoxy]phenoxy]propionic acid
                                   519173-60-5P,
(2S) -2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-
yl]-2-oxoethoxy]phenoxy]propionic acid
                                        519173-62-7P,
(4S) -4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]pyrrolidine-2-
carboxylic acid
                519173-63-8P, 3-[5-Chloro-2-[2-[4-(4-
fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2-
oxoethoxy]phenoxy]-2,2-dimethylpropionic acid 519173-65-0P,
(4S)-4-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]pyrrolidine-(2S)-2-
carboxylic acid
                519173-67-2P, (4S)-4-[5-Bromo-2-[2-[4-(4-
fluorobenzyl) - (2R) -2-methylpiperazin-1-yl] -2-
oxoethoxy]phenoxy]pyrrolidine-(2S)-2-carboxylic acid
519173-69-4P, (4S)-4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-
2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]pyrrolidine-(2S)-2-
                519173-70-7P, N-[(4S)-4-[5-Chloro-2-[2-[4-(4-
carboxylic acid
fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2-
oxoethoxy]phenoxy]pyrrolidine-(2S)-2-carbonyl]methanesulfonamide
519173-72-9P, [3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]ureido]acetic acid
519173-73-0P, 3-[3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]ureido]propionic acid
519173-74-1P, 3-[3-[4-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]ureido]propionic acid
519173-75-2P, [3-[4-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]ureido]acetic acid
519173-76-3P, 1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]-3-(methylsulfonyl)urea
519173-77-4P, [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]benzylsulfamoyl]acetic acid
519173-78-5P, 1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]benzyl]-3-(methylsulfonyl)urea
519173-79-6P, 1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]benzyl]-3-(2-
methylbenzoyl)sulfamide 519173-80-9P, [5-Bromo-2-[2-[4-(4-
fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2-
oxoethoxy]benzylideneaminooxy]acetic acid
                                           519173-81-0P,
[1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]ethylideneaminooxy]acet
        519173-82-1P, [1-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-
ic acid
(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
                                                  519173-83-2P,
oxoethoxy]phenyl]ethylideneaminooxy]acetic acid
[[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
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1-yl]-2-oxoethoxy]phenyl]phenylmethyleneaminooxy]acetic acid
519173-84-3P, [2-[2-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]-5-
methylbenzylideneaminooxy]acetic acid
                                        519173-85-4P,
(2S)-2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]benzyloxy]propionic acid
519173-86-5P, (2R)-2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-
2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]benzyloxy]propionic acid
519173-87-6P, 2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]benzyloxy]-2-methylpropionic
       519173-88-7P, Methylsulfonylcarbamic acid
5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
yl]-2-oxoethoxy]benzyl ester
                               519173-89-8P, N-[5-Chloro-2-[2-[4-
(4-fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2-
oxoethoxy]benzoyl]methanesulfonamide
                                      519173-90-1P,
N-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-
2-oxoethoxy]benzoyl]methanesulfonamide
                                        519173-91-2P,
N-[[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
1-yl]-2-oxoethoxy]phenyl]acetyl]methanesulfonamide
                                                     519173-92-3P,
N-[[5-Chloro-2-[2-[4-(4-fluorobenzyl)piperazin-1-yl]-2-
oxoethoxy]phenyl]acetyl]methanesulfonamide
                                             519173-93-4P,
N-[[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]-
trifluoromethanesulfonamide
                              519173-94-5P
                                             519173-95-6P,
N-[[2-[2-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
oxoethoxy]-4-methoxyphenyl]acetyl]methanesulfonamide
519173-96-7P
              519173-97-8P, N-[[5-Chloro-2-[2-[4-(4-fluorobenzyl)-
(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]-2-
                           519173-98-9P, Ethanesulfonic acid
methylbenzenesulfonamide
N-[[5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]amide
519173-99-0P, 3,5-Dimethylisoxazole-4-sulfonic acid
N-[[5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]amide
519174-00-6P, N-[[5-Bromo-2-[2-[4-(4-fluorobenzyl)piperazin-1-yl]-
2-oxoethoxy]phenyl]acetyl]methanesulfonamide 519174-01-7P,
(R) - N - [[5-Chloro-2-[2-[4-(4-fluorobenzyl)-2-methylpiperazin-1-yl]-
2-oxoethoxy]phenyl]acetyl]methanesulfonamide
                                              519174-02-8P,
(R)-N-[[5-Bromo-2-[2-[4-(4-fluorobenzyl)-2-methylpiperazin-1-yl]-2-
oxoethoxy]phenyl]acetyl]methanesulfonamide
                                            519174-03-9P,
N-[[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]-4-
                          519174-04-0P, 2-Chloro-N-[[5-chloro-2-
methoxybenzenesulfonamide
[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
oxoethoxy]phenyl]acetyl]benzenesulfonamide
                                            519174-05-1P,
N-[[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]-2-
                          519174-06-2P, N-[[5-Chloro-2-[2-[4-(4-
fluorobenzenesulfonamide
fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2-
oxoethoxy]phenyl]acetyl]-4-methylbenzenesulfonamide
519174-07-3P, Propane-2-sulfonic acid [[5-chloro-2-[2-[4-(4-
fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
oxoethoxy]phenyl]acetyl]amide
                               519174-08-4P, Propane-1-sulfonic
acid [[5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]amide
519174-10-8P, 2-[4-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-cyanoacetamide
519174-11-9P, N-[[4-Chloro-2-[2-[4-(4-fluorobenzy1)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]methanesulfonami
    519174-12-0P, (R)-N-[[4-Chloro-2-[2-[4-(4-fluorobenzyl)-2-
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methylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]methanesulfonamide
   519174-13-1P, N-[[5-Chloro-2-[2-[4-(3,4-difluorobenzyl)-(2R,5S)-
   2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]methanesulfo
            519174-14-2P, N-[[5-Chloro-2-[2-[4-(4-chlorobenzyl)-
   (2R, 5S) - 2, 5 - dimethylpiperazin - 1 - yl] - 2 -
   oxoethoxy]phenyl]acetyl]methanesulfonamide
                                                519174-15-3P,
   N-[[2-[2-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
                                               519174-16-4P,
   oxoethoxy]phenyl]acetyl]methanesulfonamide
   N-[[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
   dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]phenylmethanesul
              519174-17-5P, N-[3-[2-[4-(4-Fluorobenzyl)-(2R,5S)-
   2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]propionyl]methanesu
               519174-18-6P, (R)-N-[[5-Chloro-2-[2-[4-(4-
   lfonamide
   chlorobenzyl) -2-methylpiperazin-1-yl] -2-
   oxoethoxy]phenyl]acetyl]methanesulfonamide
                                                519174-19-7P,
   (R) - N - [[5-Chloro-2-[2-[4-(3,4-difluorobenzyl)-2-methylpiperazin-1-
   yl]-2-oxoethoxy]phenyl]acetyl]methanesulfonamide
                                                      519174-20-0P,
   (R) -N-[[5-Chloro-2-[2-[2-ethyl-4-(4-fluorobenzyl)piperazin-1-yl]-2-
   oxoethoxy]phenyl]acetyl]methanesulfonamide
                                                519174-21-1P,
   (R)-N-[[5-Bromo-2-[2-[2-ethyl-4-(4-fluorobenzyl)piperazin-1-yl]-2-
   oxoethoxy]phenyl]acetyl]methanesulfonamide
                                                519174-22-2P,
   (R) - N - [[2 - [2 - Ethy] - 4 - (4 - fluor obenzy]) piperazin - 1 - yl] - 2 - oxo-
   ethoxy]-5-methylphenyl]acetyl]methanesulfonamide
                                                      519174-23-3P
(R)-N-[3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-2-methylpiperazin-1-yl]-2-
   oxoethoxy]phenyl]propionyl]methanesulfonamide
                                                  519174-24-4P,
   oxoethoxy]-5-methylphenyl]propionyl]methanesulfonamide
   519174-25-5P
                 519174-26-6P, (R)-N-[3-[5-Bromo-2-[2-[4-(4-
   fluorobenzyl) -2-methylpiperazin-1-yl] -2-
   oxoethoxy]phenyl]propionyl]methanesulfonamide
                                                   519174-27-7P
   519174-28-8P, (R)-N-[3-[2-[2-Ethyl-4-(4-fluorobenzyl)piperazin-
   1-yl]-2-oxoethoxy]-5-methylphenyl]propionyl]methanesulfonamide
   519174-29-9P, [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
   dimethylpiperazin-1-yl]-2-oxoethoxy]benzylamino]acetic acid
   519174-30-2P, 3-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
   dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acrylic acid
   519174-31-3P, 3-[2-[2-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-
   dimethylpiperazin-1-yl]-2-oxoethoxy]-5-methylphenyl]acrylic acid
   519174-32-4P, 3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-
   methylpiperazin-1-yl]-2-oxoethoxy]phenyl]acrylic acid
   519174-33-5P, 3-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R)-2-
   methylpiperazin-1-yl]-2-oxoethoxy]phenyl]acrylic acid
   519174-34-6P, 5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
   dimethylpiperazin-1-yl]-2-oxoethoxy]-N-
   [(ethylamino)carbonyl]benzenesulfonamide
                                              519174-35-7P,
   5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
   yl]-2-oxoethoxy]-N-[(phenylamino)carbonyl]benzenesulfonamide
   519174-36-8P, 5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
   dimethylpiperazin-1-yl]-2-oxoethoxy]-N-[(2-
   methylphenylamino) carbonyl] benzenesulfonamide
                                                   519174-37-9P,
   5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
   yl]-2-oxoethoxy]-N-[(4-fluorophenylamino)carbonyl]benzenesulfonami
        519174-38-0P, 5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
   dimethylpiperazin-1-yl]-2-oxoethoxy]-N-
   (methoxycarbonyl) benzenesulfonamide
                                        519174-39-1P,
   5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
   yl]-2-oxoethoxy]-N-(ethoxycarbonyl)benzenesulfonamide
   519174-40-4P, 5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
   dimethylpiperazin-1-yl]-2-oxoethoxy]-N-
                                 519174-41-5P, 5-Chloro-N-
   isobutyrylbenzenesulfonamide
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(cyclopropylcarbonyl) -2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]benzenesulfonamide
              519174-43-7P
519174-42-6P
                              519174-44-8P, [[[[5-Chloro-2-[2-[4-
(4-fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2-
oxoethoxy]phenyl]sulfonyl]amino]-oxoacetic acid 519174-45-9P
519174-47-1P, (R)-N-Acetyl-1-[5-chloro-2-[2-[4-(3,4-
difluorobenzyl) -2-methylpiperazin-1-yl]-2-
oxoethoxy]phenyl]methanesulfonamide
                                      519174-48-2P,
(R) -N-Acetyl-1-[5-chloro-2-[2-[4-(4-chlorobenzyl)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-49-3P, (R)-[5-Chloro-2-[2-[4-(3,4-difluorobenzyl)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-50-6P, (R)-[5-Chloro-2-[2-[4-(4-chlorobenzyl)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-52-8P, 1-[5-Chloro-2-[2-[4-(3,4-difluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-
(cyclopropylcarbonyl) methanesulfonamide
                                          519174-53-9P,
1-[5-Chloro-2-[2-[4-(4-chlorobenzyl)-(2R)-2-methylpiperazin-1-yl]-
2-oxoethoxy]phenyl]-N-(trifluoroacetyl)methanesulfonamide
519174-54-0P, [5-Chloro-2-[2-[(2R)-2-ethyl-4-(4-
fluorobenzyl)piperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-55-1P, [5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-56-2P, [5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-57-3P, [5-Bromo-2-[2-[(2R)-2-ethyl-4-(4-
fluorobenzyl)piperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-58-4P, N-Acetyl-1-[5-chloro-2-[2-[(2R)-2-ethyl-4-(4-
fluorobenzyl)piperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-59-5P, N-Acetyl-1-[5-bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-
2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-60-8P, N-Acetyl-1-[5-bromo-2-[2-[4-(4-fluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-61-9P, N-Acetyl-1-[5-bromo-2-[2-[(2R)-2-ethyl-4-(4-
fluorobenzyl)piperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-62-0P, 1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-(2,2-
dimethylpropionyl) methanesulfonamide
                                       519174-63-1P,
[5-Chloro-2-[2-[4-(3,4-difluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-64-2P, [5-Chloro-2-[2-[4-(4-chlorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-65-3P, N-Acetyl-1-[5-chloro-2-[2-[4-(4-chlorobenzyl)-
(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
oxoethoxy]phenyl]methanesulfonamide
                                    519174-66-4P,
1-[5-Chloro-2-[2-[4-(4-chlorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
1-yl]-2-oxoethoxy]phenyl]-N-(cyclopropylcarbonyl)methanesulfonamid
   519174-67-5P
                  519174-68-6P
                                  519174-69-7P,
1-[5-Chloro-2-[2-[4-(3,4-difluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-
(cyclopropylcarbonyl) methanesulfonamide
                                          519174-70-0P,
[5-Bromo-2-[2-[4-(4-chlorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-
oxoethoxy]phenyl]methanesulfonamide
                                      519174-71-1P,
N-Acetyl-1-[5-bromo-2-[2-[4-(4-chlorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-72-2P, N-Acetyl-1-[5-bromo-2-[2-[4-(4-chlorobenzyl)-(2R,5S)-
2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-73-3P, [5-Bromo-2-[2-[4-(4-chlorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-74-4P, [5-Chloro-2-[2-[4-(4-fluorobenzy1)-(2R,5S)-2,5-
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dimethylpiperazin-1-yl]-2-oxoethoxy]phenylmethanesulfonylamino]-
oxoacetic acid
                519174-75-5P, 1-[5-Chloro-2-[2-[4-(4-
fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2-
oxoethoxy]phenyl]-N-[(1-hydroxycyclopropyl)carbonyl]methanesulfona
       519174-76-6P, [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenylmethanesulfonylamino]-
oxoacetic acid
                519174-77-7P, 1-[5-Chloro-2-[2-[4-(4-
fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2-
oxoethoxy]phenyl]-N-(methoxyacetyl)methanesulfonamide
519174-78-8P, N-Acetyl-1-[2-[2-[4-(4-fluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]-5-trifluoromethylphenyl]methane
sulfonamide
              519174-79-9P, N-Acetyl-1-[2-[2-[4-(4-fluorobenzyl)-
(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]-5-
trifluoromethylphenyl]methanesulfonamide
                                           519174-80-2P,
[2-[2-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
oxoethoxy]-5-trifluoromethylphenyl]methanesulfonamide
519174-81-3P, [2-[2-[4-(4-Fluorobenzyl)-(2R)-2-methylpiperazin-1-
yl]-2-oxoethoxy]-5-trifluoromethylphenyl]methanesulfonamide
              519174-83-5P, 1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-
519174-82-4P
(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-(3-
hydroxy-3-methylbutyryl) methanesulfonamide
                                            519174-84-6P,
1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-
2-oxoethoxy]phenyl]-N-(2-hydroxy-2-methylpropionyl)methanesulfonam
      519174-85-7P, 1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-
(hydroxyacetyl) methanesulfonamide
                                   519174-86-8P
                                                   519174-87-9P
519174-88-0P, 1-[5-Chloro-2-[2-[4-(4-chlorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-
(hydroxyacetyl) methanesulfonamide 519174-89-1P,
1-[5-Chloro-2-[2-[4-(3,4-difluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-
(hydroxyacetyl) methanesulfonamide
                                   519174-90-4P,
1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-
2-oxoethoxy]phenyl]-N-(3-hydroxy-3-methylbutyryl)methanesulfonamid
    519174-91-5P, 1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-[(1-
hydroxycyclopropyl)carbonyl]methanesulfonamide
                                                519174-92-6P,
1-[2-[2-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
oxoethoxy]-5-trifluoromethylphenyl]-N-
(hydroxyacetyl) methanesulfonamide
                                    519174-93-7P,
1-[2-[2-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
oxoethoxy]-5-trifluoromethylphenyl]-N-(2-hydroxy-2-
methylpropionyl) methanesulfonamide
                                    519174-94-8P,
1-[2-[2-[4-(4-Fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-
oxoethoxy]-5-trifluoromethylphenyl]-N-(2-hydroxy-2-
methylpropionyl) methanesulfonamide
                                    519174-95-9P,
1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-
2-oxoethoxy]phenyl]-N-(methoxycarbonyl)methanesulfonamide
519174-96-0P, 1-[5-Chloro-2-[2-[4-(4-chlorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-
(methoxycarbonyl) methanesulfonamide 519174-97-1P,
1-[5-Chloro-2-[2-[4-(3,4-difluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-
(methoxycarbonyl) methanesulfonamide
   (preparation of N-benzylpiperazine derivs. as chemokine receptor
   CCR1 antagonists useful as immunomodulatory agents)
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Preparation of piperazine derivatives as CCR1
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                         antagonists
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INVENTOR(S):
                         Gaweco, Anderson See; Gladue, Ronald Paul;
                         Hayward, Matthew Merrill; Lundquist, Gregory
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             UZ, VC, VN, YU, ZA, ZM, ZW
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2003 1020

OTHER SOURCE(S):

MARPAT 140:391297

GΙ

$$(R^{1})_{a}$$

$$(R^{2})_{b}$$

$$(R^{3})_{c}$$

$$(R^{5})_{p}$$

Title compds. I [a = 0-5; b,c = 0-2; p = 0-4; X = 0, S, CH2, (un) substituted amino; Y = (hetero) aryl; R1 = H, OH, halo, alkyl, alkoxy, etc.; R2-3 = H, oxo, (cyclo) alkyl, aryl, etc.; R4 = alkyl, etc.; R5 = H, OH, halo, CN, etc.] are prepared For instance, (2R,5S)-1-(4-fluorobenzyl)-2,5-dimethylpiperazine (preparation given) is reacted with 7-methylchroman-2-one (PhMe, reflux 48 h), the resulting propanone treated with bromoacetic acid Me ester (THF, NaH) and the ester saponified to give II. All example compds. have IC50 < 10 μM in the chemotaxis assay. I are useful for treating or preventing a disorder or condition that can be treated or prevented by antagonizing the CCR1 receptor in a mammal.

IT 519171-77-8P 519173-15-0P, N-[[2-[3-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-3-oxopropyl]-5methoxyphenoxy]acetyl]methanesulfonamide

(preparation of substituted N-acylpiperazine derivs. as CCR1 antagonists)

RN 519171-77-8 HCAPLUS

CN Acetamide, 2-[2-[3-[(2R,5S)-4-[(4-fluorophenyl)methyl]-2,5-dimethyl-1-piperazinyl]-3-oxopropyl]-5-methylphenoxy]-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

-22:

RN 519173-15-0 HCAPLUS

CN Acetamide, 2-[2-[3-[(2R,5S)-4-[(4-fluorophenyl)methyl]-2,5-dimethyl-1-piperazinyl]-3-oxopropyl]-5-methoxyphenoxy]-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IC ICM A61K031-495 ICS A61P037-02

28-17 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1, 63

IT Alzheimer's disease

Anorexia

CC

Anti-Alzheimer's agents

Anticholesteremic agents

Antidiabetic agents

Antiobesity agents

Antitumor agents

Bone resorption

Cachexia

Cardiovascular agents

Cytomegalovirus

Diabetes insipidus

Diabetes mellitus

Emphysema

Encephalomyelitis

Fibrosis

Human

Hyperplasia

Inflammation

Kidney, disease

Lyme disease

Malaria

Mammary gland, neoplasm

Meningitis

Multiple myeloma

```
Neoplasm
    Obesity
        (preparation of substituted N-acylpiperazine derivs. as CCR1
       antagonists)
                   519171-85-8P, (2S)-2-[5-Chloro-2-[2-[4-(4-
IT
    519171-77-8P
    fluorobenzyl) - (2R, 5S) -2, 5-dimethylpiperazin-1-yl] -2-
    oxoethoxy]phenoxy]propionic acid 519171-92-7P,
     [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
    yl]-2-oxoethoxy]phenylsulfamoyl]acetic acid 519171-93-8P,
    3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
    1-yl]-2-oxoethoxy]benzylamino]propionic acid hydrochloride
    519171-96-1P
                   519171-98-3P, (2-Methylbenzenesulfonyl)carbamic
    acid 5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
    dimethylpiperazin-1-yl]-2-oxoethoxy]benzyl ester
                                                        519171-99-4P,
    2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
    1-yl]-2-oxoethoxy]benzylsulfamoyl]propionic acid
                                                        519172-04-4P
    519172-06-6P, [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
    dimethylpiperazin-1-yl]-2-oxoethoxy]benzylideneaminooxy]acetic
           519172-07-7P, N-[[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-
    2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]methanesulfo
              519172-09-9P, N-[[5-Chloro-2-[2-[4-(4-fluorobenzyl)-
     (2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
    oxoethoxy]phenyl]acetyl]sulfamide 519172-10-2P,
    N-[3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
    dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]propionyl]methanesulfon
            519172-14-6P, 3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-
    2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acrylic acid
    519172-16-8P, [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
    dimethylpiperazin-1-yl-2-oxoethoxy]benzenesulfonyl]amino]acetic
    acid hydrochloride 519172-21-5P, 5-Chloro-N-(2,2-
    dimethylpropionyl) -2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
    dimethylpiperazin-1-yl]-2-oxoethoxy]benzenesulfonamide
    519172-22-6P, 5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
    dimethylpiperazin-1-yl]-2-oxoethoxy]-N-(2-hydroxy-2-
    methylpropionyl) benzenesulfonamide 519172-30-6P
                                                        519172-32-8P
    519172-33-9P, N-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-
    methylpiperazin-1-yl]-2-oxoethoxy]pyridin-3-yl]succinamic acid
    519172-37-3P, N-[[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
    dimethylpiperazin-1-yl]-2-oxoethoxy]pyridin-3-
    yl]acetyl]methanesulfonamide
                                   519172-45-3P, 3-[5-Chloro-2-[2-[4-
     (4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
    oxoethoxy]pyridin-3-yl]propionic acid 519172-49-7P,
     [[5-Chloro-2-[2-[[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
     1-yl]-2-oxoethyl]amino]pyridine-3-carbonyl]amino]acetic acid
    519172-55-5P, 2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
    dimethylpiperazin-1-yl]-2-oxoethoxy]phenylsulfanyl]-2-
    methylpropionic acid 519172-59-9P, 2-[5-Chloro-2-[2-[4-(4-
     fluorobenzyl) - (2R, 5S) -2, 5-dimethylpiperazin-1-yl] -2-
    oxoethoxy]benzenesulfonyl]-2-methylpropionic acid
                                                         519172-62-4P,
     [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
    yl]-2-oxoethoxy]phenylmethanesulfonyl]acetic acid
                                                        519172-65-7P,
    N-[3-[3-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-
    2-oxoethoxy]-6-methylpyridin-2-yl]propionyl]methanesulfonamide
    519172-70-4P, 2-Amino-3-[5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-
     2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]propionic acid
     519172-73-7P, [[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
    dimethylpiperazin-1-yl]-2-oxoethoxy]benzyl]methylamino]acetic acid
     519172-75-9P, 2-[4-Chloro-2-(2H-tetrazol-5-ylmethoxy)phenoxy]-1-[4-
     (4-fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl]ethanone
     519172-77-1P, 2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
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dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]nicotinic acid
               519172-78-2P, [2-[2-[(2R)-2-Carbamoylmethyl-4-(4-
hydrochloride
fluorobenzyl)piperazin-1-yl]-2-oxoethoxy]-5-chlorophenoxy]acetic
      519172-86-2P, (4S)-4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-
(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-1-
methylpyrrolidine-(2S)-2-carboxylic acid dihydrochloride
               519172-88-4P, 6-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-
519172-87-3P
(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
oxoethoxy]phenoxymethyl]nicotinic acid
                                         519172-90-8P,
5-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
1-yl]-2-oxoethoxy]phenyl]-5-oxopentanoic acid
                                                519172-94-2P,
5-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
1-yl]-2-oxoethoxy]phenyl]dihydrofuran-2-one 519173-10-5P,
1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
1-yl]-2-oxoethoxy]phenyl]-2-(1H-tetrazol-5-yl)ethanone
hydrochloride
               519173-13-8P, 1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-
(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]-3-(1H-
tetrazol-5-yl)propan-1-one hydrochloride
                                           519173-14-9P
519173-15-0P, N-[[2-[3-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-3-oxopropyl]-5-
methoxyphenoxy]acetyl]methanesulfonamide
                                           519173-16-1P,
[5-Chloro-2-[3-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
yl]-3-oxopropyl]phenoxy]acetic acid
                                     519173-17-2P,
[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
yl]-2-oxoethoxy]phenyl]oxoacetic acid
                                        519173-18-3P,
[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-
                                519173-19-4P, N-[[5-Chloro-2-[2-[4-
oxoethoxy]phenoxy]acetic acid
(4-fluorobenzyl) - (2R) -2-methylpiperazin-1-yl] -2-
                                              519173-20-7P,
oxoethoxy]phenoxy]acetyl]methanesulfonamide
[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
yl]-2-oxoethoxy]phenoxy]acetic acid
                                      519173-21-8P,
[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-
                              519173-22-9P, [5-Chloro-2-[2-[(2R)-
oxoethoxy]phenoxy]acetic acid
2-ethyl-4-(4-fluorobenzyl)piperazin-1-yl]-2-
oxoethoxy]phenoxy]acetic acid
                              519173-23-0P, N-[[5-Bromo-2-[2-[4-
(4-fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2-
oxoethoxy]phenoxy]acetyl]methanesulfonamide
                                             519173-24-1P,
N-[[5-Bromo-2-[2-[4-(4-fluorobenzy1)-(2R)-2-methylpiperazin-1-y1]-
2-oxoethoxy]phenoxy]acetyl]methanesulfonamide 519173-25-2P,
N-[[5-Chloro-2-[2-[(2R)-2-ethyl-4-(4-fluorobenzyl)piperazin-1-yl]-
2-oxoethoxy]phenoxy]acetyl]methanesulfonamide
                                                519173-26-3P,
2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
1-yl]-2-oxoethoxy]phenoxy]-2-methylpropionic acid
                                                    519173-27-4P,
4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
1-yl]-2-oxoethoxy]phenoxy]butyric acid
                                        519173-28-5P,
6-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
1-yl]-2-oxoethoxy]phenoxy]pyridine-2-carboxylic acid
519173-29-6P, [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]difluoroacetic acid
519173-30-9P, (2R)-2-Amino-4-[5-chloro-2-[2-[4-(4-fluorobenzyl)-
(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]butyric
       519173-31-0P, [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenoxy]difluoroacetic acid
519173-32-1P, (R)-4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenoxy]butanoic acid
519173-33-2P, 2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-2-methylpropionic acid
519173-34-3P, (2S)-2-Amino-4-[5-chloro-2-[2-[4-(4-fluorobenzyl)-
(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]butyric
      519173-35-4P, 2-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-
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2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-2-methylpropionic 519173-36-5P, [5-Bromo-2-[2-[4-(4-fluorobenzy1)-(2R,5S)-2,5dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]difluoroacetic acid 519173-37-6P, 2-[5-Bromo-2-[2-[4-(4-fluorobenzy1)-(2R)-2methylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-2-methylpropionic acid 519173-38-7P, [5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R)-2methylpiperazin-1-yl]-2-oxoethoxy]phenoxy]difluoroacetic acid 519173-39-8P, (2S)-2-Amino-4-[5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-oxoethoxy]phenoxy]butyric acid 519173-40-1P, (2S)-2-Amino-4-[5-bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]butyric 519173-41-2P, 4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]pyridine-2carboxylic acid 519173-42-3P, N-[(2R)-2-Amino-4-[5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2oxoethoxy]phenoxy]butyryl]methanesulfonamide 519173-43-4P, 2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxymethyl]thiazole-4-carboxylic acid 519173-44-5P, 3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxymethyl]furan-2carboxylic acid 519173-45-6P, 5-[5-Chloro-2-[2-[4-(4fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2oxoethoxy]phenoxymethyl]furan-2-carboxylic acid 519173-46-7P, 3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxymethyl]thiophene-2-carboxylic acid 519173-47-8P, 2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxymethyl]furan-3carboxylic acid 519173-48-9P, 5-[5-Chloro-2-[2-[4-(4fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2oxoethoxy]phenoxymethyl]thiophene-2-carboxylic acid 519173-49-0P , 3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1yl]-2-oxoethoxy]phenoxymethyl]furan-2-carboxylic acid 519173-50-3P, 3-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-2methylpiperazin-1-yl]-2-oxoethoxy]phenoxymethyl]furan-2-carboxylic 519173-51-4P, 5-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-5-(2methoxyethyl)pyrimidine-2,4,6-trione 519173-53-6P, 5-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-5-methylpyrimidine-2,4,6-trione 519173-55-8P, 5-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-5-ethylpyrimidine-519173-58-1P, (2R)-2-[5-Chloro-2-[2-[4-(4-2,4,6-trione fluorobenzyl) - (2R) -2-methylpiperazin-1-yl] -2oxoethoxy]phenoxy]propionic acid 519173-60-5P, (2S) -2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1yl]-2-oxoethoxy]phenoxy]propionic acid 519173-62-7P, (4S) -4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]pyrrolidine-2-519173-63-8P, 3-[5-Chloro-2-[2-[4-(4carboxylic acid fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2oxoethoxy]phenoxy]-2,2-dimethylpropionic acid 519173-65-0P, (4S) -4-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]pyrrolidine-(2S)-2carboxylic acid 519173-67-2P, (4S)-4-[5-Bromo-2-[2-[4-(4fluorobenzyl) - (2R) -2-methylpiperazin-1-yl] -2oxoethoxy]phenoxy]pyrrolidine-(2S)-2-carboxylic acid 519173-69-4P, (4S)-4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]pyrrolidine-(2S)-2-519173-70-7P, N-[(4S)-4-[5-Chloro-2-[2-[4-(4carboxylic acid fluorobenzyl) - (2R, 5S) -2, 5-dimethylpiperazin-1-yl] -217.00

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oxoethoxy]phenoxy]pyrrolidine-(2S)-2-carbonyl]methanesulfonamide
                             519173-74-1P
              519173-73-0P
519173-72-9P
                                           519173-75-2P
              519173-77-4P, [5-Chloro-2-[2-[4-(4-fluorobenzyl)-
519173-76-3P
(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
oxoethoxy]benzylsulfamoyl]acetic acid
                                       519173-78-5P
519173-79-6P
              519173-80-9P, [5-Bromo-2-[2-[4-(4-fluorobenzyl)-
(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
                                           519173-81-0P,
oxoethoxy]benzylideneaminooxy]acetic acid
[1-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]ethylideneaminooxy]acet
        519173-82-1P, [1-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-
(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
oxoethoxy]phenyl]ethylideneaminooxy]acetic acid
                                                519173-83-2P,
[[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
1-yl]-2-oxoethoxy]phenyl]phenylmethyleneaminooxy]acetic acid
519173-84-3P, [2-[2-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]-5-
methylbenzylideneaminooxy]acetic acid
                                       519173-85-4P,
(2S)-2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]benzyloxy]propionic acid
519173-86-5P, (2R)-2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-
2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]benzyloxy]propionic acid
519173-87-6P, 2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]benzyloxy]-2-methylpropionic
      519173-88-7P, Methylsulfonylcarbamic acid
5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
yl]-2-oxoethoxy]benzyl ester
                              519173-89-8P
                                             519173-90-1P,
N-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-
2-oxoethoxy]benzoyl]methanesulfonamide
                                       519173-91-2P
519173-92-3P, N-[[5-Chloro-2-[2-[4-(4-fluorobenzyl)piperazin-1-yl]-
2-oxoethoxy]phenyl]acetyl]methanesulfonamide
                                              519173-93-4P
519173-94-5P
              519173-95-6P
                             519173-96-7P
                                            519173-97-8P
                             519174-00-6P, N-[[5-Bromo-2-[2-[4-(4-
519173-98-9P
              519173-99-0P
fluorobenzyl)piperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]methanesulf
         519174-01-7P, (R)-N-[[5-Chloro-2-[2-[4-(4-fluorobenzyl)-
2-methylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]methanesulfonami
    519174-02-8P, (R)-N-[[5-Bromo-2-[2-[4-(4-fluorobenzyl)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]methanesulfonamide
              519174-04-0P
                             519174-05-1P
519174-03-9P
                                            519174-06-2P
519174-07-3P, Propane-2-sulfonic acid [[5-chloro-2-[2-[4-(4-
fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2-
oxoethoxy]phenyl]acetyl]amide
                               519174-08-4P
                                              519174-11-9P
519174-12-0P, (R)-N-[[4-Chloro-2-[2-[4-(4-fluorobenzyl)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetyl]methanesulfonamide
              519174-14-2P
519174-13-1P
                             519174-15-3P
                                            519174-16-4P
              519174-18-6P, (R)-N-[[5-Chloro-2-[2-[4-(4-
519174-17-5P
chlorobenzyl) -2-methylpiperazin-1-yl] -2-
oxoethoxy]phenyl]acetyl]methanesulfonamide
                                            519174-19-7P,
(R) - N - [[5-Chloro-2-[2-[4-(3,4-difluorobenzyl)-2-methylpiperazin-1-
yl]-2-oxoethoxy]phenyl]acetyl]methanesulfonamide
                                                  519174-20-0P,
(R)-N-[[5-Chloro-2-[2-[2-ethyl-4-(4-fluorobenzyl)piperazin-1-yl]-2-
oxoethoxy]phenyl]acetyl]methanesulfonamide
                                            519174-21-1P,
(R)-N-[[5-Bromo-2-[2-[2-ethyl-4-(4-fluorobenzyl)piperazin-1-yl]-2-
oxoethoxy]phenyl]acetyl]methanesulfonamide
                                            519174-22-2P,
oxoethoxy]-5-methylphenyl]acetyl]methanesulfonamide
519174-23-3P, (R)-N-[3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]propionyl]methanesulfonam
     519174-24-4P, N-[3-[2-[4-(4-Fluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]-5-methylphenyl]propionyl]methan
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519174-25-5P
                                               519174-26-6P, (R)-N-[3-[5-Bromo-2-[2-
esulfonamide
[4-(4-fluorobenzyl)-2-methylpiperazin-1-yl]-2-
oxoethoxy]phenyl]propionyl]methanesulfonamide
                                                                           519174-27-7P
519174-28-8P, (R)-N-[3-[2-[2-Ethyl-4-(4-fluorobenzyl)piperazin-
1-yl]-2-oxoethoxy]-5-methylphenyl]propionyl]methanesulfonamide
519174-29-9P, [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]benzylamino]acetic acid
519174-30-2P, 3-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acrylic acid
519174-31-3P, 3-[2-[2-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]-5-methylphenyl]acrylic acid
519174-32-4P, 3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]acrylic acid
519174-33-5P, 3-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]acrylic acid
519174-34-6P
                     519174-35-7P
                                               519174-36-8P
                                                                      519174-37-9P
                       519174-39-1P
519174-38-0P
                                               519174-40-4P
                                                                      519174-41-5P
519174-42-6P
                     519174-43-7P
                                               519174-44-8P
                                                                      519174-45-9P
519174-52-8P, (R)-[5-Chloro-2-[2-[4-(3,4-difluorobenzyl)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-
((cyclopropane)carbonyl)methanesulfonamide
                                                                      519174-53-9P,
(R) - [5-Chloro-2-[2-[4-(4-chlorobenzyl)-2-methylpiperazin-1-yl]-2-
oxoethoxy]phenyl]-N-(trifluoroacetyl)methanesulfonamide
519174-62-0P
                      519174-63-1P, [5-Chloro-2-[2-[4-(3,4-
difluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
oxoethoxy]phenyl]methanesulfonamide 519174-66-4P
                                                                                   519174-67-5P
                      519174-70-0P, [5-Bromo-2-[2-[4-(4-chlorobenzyl)-
519174-69-7P
(2R) -2-methylpiperazin-1-yl] -2-oxoethoxy]phenyl]methanesulfonamide
519174-73-3P, [5-Bromo-2-[2-[4-(4-chlorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]methanesulfonamide
519174-74-4P, [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenylmethanesulfonylamino]oxo
                    519174-75-5P
                                            519174-76-6P, [5-Chloro-2-[2-[4-(4-
acetic acid
fluorobenzyl) - (2R) -2-methylpiperazin-1-yl] -2-
oxoethoxy]phenylmethanesulfonylamino]oxoacetic acid
                                                                                     519174-77-7P
519174-78-8P, (R)-N-Acetyl[2-[2-[4-(4-fluorobenzyl)-2-
methylpiperazin-1-yl]-2-oxoethoxy]-5-trifluoromethylphenyl]methane
                     519174-79-9P
                                           519174-80-2P, [2-[2-[4-(4-
sulfonamide
Fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]-5-
trifluoromethylphenyl]methanesulfonamide 519174-81-3P,
[2-[2-[4-(4-Fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-
oxoethoxy]-5-trifluoromethylphenyl]methanesulfonamide
519174-82-4P
                       519174-83-5P
                                             519174-84-6P, (R)-[5-Chloro-2-[2-[4-
(4-fluorobenzyl)-2-methylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-(2-
hydroxy-2-methylpropionyl) methanesulfonamide 519174-85-7P,
(R) - [5-Chloro-2-[2-[4-(4-fluorobenzyl)-2-methylpiperazin-1-yl]-2-
oxoethoxy]phenyl]-N-(hydroxyacetyl)methanesulfonamide
519174-86-8P
                       519174-87-9P
                                             519174-88-0P
                                                                      519174-89-1P
519174-90-4P, (R)-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]-N-(3-hydroxy-3-
methylbutyryl) methanesulfonamide 519174-91-5P,
(R) - [5-Chloro-2-[2-[4-(4-fluorobenzyl)-2-methylpiperazin-1-yl]-2-
oxoethoxy]phenyl]-N-((1-hydroxycyclopropane)carbonyl)methanesulfon
           519174-92-6P
                                   519174-93-7P
                                                          519174-94-8P,
(R) - [2 - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [4 - (4 - Fluor obenzy]) - 2 - methylpiperazin - 1 - yl] - 2 - oxoethoxy] - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenz]) - [2 - [4 - (4 - Fluor obenzy]) - [2 - [4 - (4 - Fluor obenz]) - [2 - [4 - (4 - Fluor
5-trifluoromethylphenyl]-N-(2-hydroxy-2-
methylpropionyl) methanesulfonamide 519174-95-9P,
(R) - [5-Chloro-2-[2-[4-(4-fluorobenzyl)-2-methylpiperazin-1-yl]-2-
oxoethoxy]phenyl]-N-(methoxycarbonyl)methanesulfonamide
                     519174-97-1P
                                             519174-98-2P, N-[5-Chloro-2-[2-[4-(4-
519174-96-0P
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fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-oxoethoxy]pyridin-3-
        yl]-2,2-dimethylsuccinamic acid
                                                                519174-99-3P,
        [{5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
        1-yl]-2-oxoethoxy]pyridine-3-carbonyl]amino]acetic acid
        519175-00-9P, N-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
        dimethylpiperazin-1-yl]-2-oxoethoxy]pyridin-3-yl]succinamic acid
        519175-01-0P, 3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
        dimethylpiperazin-1-yl]-2-oxoethoxy]pyridin-3-yl]acrylic acid
        519175-02-1P, 3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
        dimethylpiperazin-1-yl]-2-oxoethylamino]pyridin-3-yl]propionic
                   519175-03-2P, N-[3-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-
        (2R,5S)-2,5-dimethylpiperazin-1-yl]-2-oxoethoxy]pyridin-3-
        yl]propionyl]methanesulfonamide
                                                                 519175-04-3P,
        2-Amino-3-[5-chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
        dimethylpiperazin-1-yl]-2-oxoethoxy]pyridin-3-yl]propionic acid
        519175-05-4P
, [[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
        yl]-2-oxoethoxy]pyridin-3-ylmethyl]amino]acetic acid
        519175-06-5P, 2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
        dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]-6-methylpyrimidine-4-
        carboxylic acid
                                    519175-07-6P, 2-[5-Chloro-2-[2-[4-(4-
        fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2-
        oxoethoxy]phenoxy]-4-methylthiazole-5-carboxylic acid
        519175-08-7P, 6-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
        dimethylpiperazin-1-yl]-2-oxoethoxy]phenoxy]nicotinic acid
        519175-09-8P, 2-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
        dimethylpiperazin-1-yl]-2-oxoethoxy|phenoxymethyl|nicotinic acid
        519175-10-1P, 6-[[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
        dimethylpiperazin-1-yl]-2-oxoethoxy]pyridin-3-
        ylamino]methyl]nicotinic acid 519175-11-2P, 2-[4-Chloro-2-(2H-
        tetrazol-5-yloxy) phenoxy] -1-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
        dimethylpiperazin-1-yl]ethanone
                                                                519175-12-3P,
        2-[4-Bromo-2-(2H-tetrazol-5-yloxy)phenoxy]-1-[4-(4-fluorobenzyl)-
        (2R) -2-methylpiperazin-1-yl]ethanone
                                                                         519175-13-4P,
        [5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-
        oxoethoxy]phenyl]acetic acid
                                                          519175-14-5P, [5-Bromo-2-[2-[4-(4-
        fluorobenzyl) - (2R, 5S) -2,5-dimethylpiperazin-1-yl] -2-
        oxoethoxy]phenyl]acetic acid
                                                            519175-15-6P, [5-Bromo-2-[2-[4-(4-
        fluorobenzyl) - (2R) -2-methylpiperazin-1-yl] -2-
        oxoethoxy]phenyl]acetic acid
                                                          519175-16-7P, [2-[2-[4-(4-
        Fluorobenzyl) - (2R,5S) -2,5-dimethylpiperazin-1-yl] -2-oxoethoxy] -4-
                                                       519175-17-8P, 3-[5-Chloro-2-[2-[4-(4-
        methoxyphenyl]acetic acid
        fluorobenzyl) - (2R) -2-methylpiperazin-1-yl] -2-
        oxoethoxy]phenyl]propionic acid
                                                                  519175-18-9P,
        [4-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-
        yl]-2-oxoethoxy]phenyl]acetic acid
                                                                       519175-19-0P,
        [4-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-
        oxoethoxy]phenyl]acetic acid
                                                          519175-20-3P, 3-[2-[2-[4-(4-
        Fluorobenzyl) - (2R) -2-methylpiperazin-1-yl] -2-oxoethoxy] -5-
        methylphenýl]propionic acid 519175-21-4P, 3-[2-[2-[4-(4-
        \label{lem:fluorobenzyl} \textbf{Fluorobenzyl)} \textbf{-(2R,5S)} \textbf{-2,5-dimethylpiperazin-1-yl]} \textbf{-2-oxoethoxy} \textbf{-5-dimethylpiperazin-1-yl} \textbf{-2-oxoethoxy} \textbf{-5-dimethylpiperazin-1-yl} \textbf{-2-oxoethoxy} \textbf{-5-dimethylpiperazin-1-yl} \textbf{-2-oxoethoxy} \textbf{-5-dimethylpiperazin-1-yl} \textbf{-2-oxoethoxy} \textbf{-5-dimethylpiperazin-1-yl} \textbf{-3-oxoethoxy} \textbf{-3-dimethylpiperazin-1-yl} \textbf{-3-dimethylpiperazin-1
        methylphenyl]propionic acid
                                                         519175-22-5P, 3-[5-Bromo-2-[2-[4-(4-
        fluorobenzyl) - (2R) -2-methylpiperazin-1-yl] -2-
        oxoethoxy]phenyl]propionic acid
                                                                  519175-23-6P,
        3-[5-Bromo-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
        1-yl]-2-oxoethoxy]phenyl]propionic acid
                                                                             519175-24-7P,
        [5-Chloro-2-[2-[4-(3,4-difluorobenzyl)-(2R,5S)-2,5-
        dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetic acid
        519175-25-8P, [5-Chloro-2-[2-[4-(4-chlorobenzyl)-(2R,5S)-2,5-
        dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetic acid
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519175-26-9P, [5-Chloro-2-[2-[(2R)-2-ethyl-4-(4-
fluorobenzyl)piperazin-1-yl]-2-oxoethoxy]phenyl]acetic acid
519175-27-0P, [5-Bromo-2-[2-[(2R)-2-ethyl-4-(4-
fluorobenzyl)piperazin-1-yl]-2-oxoethoxy]phenyl]acetic acid
519175-28-1P, [5-Chloro-2-[2-[4-(4-chlorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetic acid
519175-29-2P, [5-Chloro-2-[2-[4-(3,4-difluorobenzyl)-(2R)-2-
methylpiperazin-1-yl]-2-oxoethoxy]phenyl]acetic acid
519175-30-5P, [2-[2-[(2R)-2-Ethyl-4-(4-fluorobenzyl)piperazin-1-
yl]-2-oxoethoxy]-5-methylphenyl]acetic acid
                                             519175-31-6P,
[2-[2-[4-(4-Fluorobenzyl)-(2R)-2-methylpiperazin-1-yl]-2-
oxoethoxy]-5-methylphenyl]acetic acid
                                        519175-32-7P,
[2-[2-[4-(4-Fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-2-
oxoethoxy]-5-methylphenyl]acetic acid
                                        519175-33-8P,
3-[2-[2-[(2R)-2-Ethyl-4-(4-fluorobenzyl)piperazin-1-yl]-2-
oxoethoxy]-5-methylphenyl]propionic acid 519175-35-0P,
(R) -4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-2-methylpiperazin-1-yl]-2-
oxoethoxy]phenyl]-4-oxobutanoic acid
                                      519175-37-2P,
4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-
1-yl]-2-oxoethoxy|phenyl]-4-hydroxybut-3-enoic acid
519175-38-3P, 4-[5-Chloro-2-[2-[4-(4-fluorobenzyl)-(2R,5S)-2,5-
dimethylpiperazin-1-yl]-2-oxoethoxy]phenyl]but-3-enoic acid
688031-91-6P
               688031-92-7P
                              688031-94-9P, (R)-3-[N'-[5-Chloro-2-
[2-[4-(4-fluorobenzyl)-2-methylpiperazin-1-yl]-2-
oxoethoxy]phenyl]ureido]propionic acid hydrochloride
               688031-98-3P
                              688032-01-1P
688031-96-1P
                                             688032-02-2P
               688032-05-5P
                              688032-06-6P, (R)-N-Acetyl[5-chloro-
688032-03-3P
2-[2-[4-(4-fluorobenzyl)-2-methylpiperazin-1-yl]-2-
oxoethoxy] phenyl] methanesulfonamide
   (preparation of substituted N-acylpiperazine derivs. as CCR1
   antagonists)
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ACCESSION NUMBER:

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DOCUMENT NUMBER:

140:181466

TITLE:

Preparation of resorcinol derivatives as

peroxisome proliferator-activated

receptor (PPAR) γ -agonists

INVENTOR(S):

. .

Shibata, Tomoyuki; Wada, Kunio; Nakamura,

Yuji; Araki, Kazushi

PATENT ASSIGNEE(S):

Sankyo Company, Limited, Japan

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
    CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,
    GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
    KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
    MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,
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SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
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             GQ, GW, ML, MR, NE, SN, TD, TG
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                                20040422
                                             JP 2003-205222
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PRIORITY APPLN. INFO.:
                                             JP 2002-225980
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                                                                     0802
                                             WO 2003-JP9834
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OTHER SOURCE(S):

MARPAT 140:181466

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4-[(Pyrido[2,3-d]imidazol-2-yl or benzimidazol-2-AΒ ylalkoxy)phenyl]propanoic acid or acetic acid derivs. represented by the following general formula (I) [wherein X = CH, N; R1 = each (un) substituted C1-6 alkyl, C3-10 cycloalkyl, C2-6 alkenyl, C6-10 aryl, C7-16 aralkyl, 4- to 10-membered heterocycle containing one to three heteroatoms selected from N, O, and S atoms; R2 = each (un) substituted C7-16 aralkyl, C9-16 aralkenyl, or alkyl substituted by a 5- to 10-membered heteroarom. ring containing one to three heteroatoms selected from N, O, and S atoms; R3 = H, C1-6alkyl, (un)substituted C6-10 aryl; m = 1, 2; n = an integer of 1-3] or pharmacol. acceptable salts or esters thereof are prepared Also disclosed are pharmaceutical compns. containing the compds. I or pharmacol. acceptable salts or esters thereof as the active ingredients (1) for improving insulin-resistance, lowering blood sugar, or inhibiting the proliferation of cancer cells or (2) for the prevention and/or treatment of diabetes, impaired glucose tolerance, obesity, hyperlipemia, or diabetes complications. Thus, 1.09 g 3-(2-benzyloxy-4hydroxyphenyl)propionic acid Et ester and 697 mg 2-hydroxymethyl-6-methoxy-1-methyl-1H-benzimidazole were dissolved in 30 mL toluene, treated with 1.13 mL tributylphosphine and 1.14

Т

q 1,1'-(azodicarbonyl)dipiperidine and stirred at room temperature overnight to give 87% 3-[2-benzyloxy-4-(6-methoxy-1-methyl-1Hbenzimidazol-2-ylmethoxy)phenyl]propionic acid Et ester which (1.5 g) was stirred with a mixture of 7 mL EtOH, 7 mL THF, and 6.3 mL 1 N aqueous NaOH at room temperature overnight and stirred with 1 N aqueous HCl and EtOAc to give 45% 3-[2-benzyloxy-4-(6-methoxy-1-methyl-1Hbenzimidazol-2-ylmethoxy)phenyl]propionic acid (II). 3-[4-[2-[6-(4-Amino-3,5-dimethylphenoxy)-1-methyl-1H-benzimidazol-2-yl]ethoxy]-2-(4-chlorobenzyloxy)phenyl]propionic acid hydrochloride was fed t male KK mice with a feed containing 0.01% II for 3 days to lower blood sugar level by 71%. A capsule, a tablet, and a granule containing I were formulated. 657431-17-9P 657431-36-2P 657431-40-8P 657431-44-2P 657431-46-4P 657431-50-0P 657431-56-6P 657431-60-2P 657431-64-6P 657431-68-0P 657431-72-6P 657431-76-0P 657431-88-4P 657431-93-1P 657432-02-5P (preparation of resorcinol derivs. as peroxisome proliferator-activated receptor (PPAR) γ-agonists, anticancer agents, or treatment or prevention of diabetes, impaired glucose tolerance, obesity, or hyperlipemia) RN657431-17-9 HCAPLUS Benzenepropanoic acid, 2-[(4-chlorophenyl)methoxy]-4-[2-[[2-[[(1,1-CN dimethylethoxy) carbonyl] methylamino] -4-(phenylmethoxy)phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) INDEX NAME)

C1
$$CH_2-O-CH_2-CH_2$$

$$EtO-C-CH_2-CH_2$$

$$O-CH_2-CH_2$$

$$N-C-OBu-t$$

$$Me O$$

RN 657431-36-2 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[4-[2-(acetyloxy)ethoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-2-[(4-chlorophenyl)methoxy]-, ethyl ester (9CI) (CA INDEX NAME)

RN 657431-40-8 HCAPLUS

CN Benzenepropanoic acid, 2-[(4-chlorophenyl)methoxy]-4-[2-[[4-[2-(dimethylamino)ethoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

C1
$$O-CH_2-CH_2-NMe_2$$
 $O-CH_2-CH_2-NMe_2$ $O-CH_2-NMe_2$ $O-CH_2-NMe_$

RN 657431-44-2 HCAPLUS

CN Benzenepropanoic acid, 2-[(4-chlorophenyl)methoxy]-4-[2-[[2-[[(1,1-dimethylethoxy)carbonyl]methylamino]-4-[(1-methyl-4-piperidinyl)oxy]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

RN 657431-46-4 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[5-[4-[[(1,1-dimethylethoxy)carbonyl]amino]-3,5-dimethylphenoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-2-(phenylmethoxy)-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

t-BuO-C-NH

Me

NH-C-CH₂-O

NH-C-OBu-t

Me

Ne

O

PAGE 1-B

- OEt

RN 657431-50-0 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[4-[[[3-[(4-chlorophenyl)methoxy]-4-(3-ethoxy-3-oxopropyl)phenoxy]acetyl]amino]-3-[[(1,1-

dimethylethoxy)carbonyl]methylamino]phenoxy]-, 1,1-dimethylethyl
ester (9CI) (CA INDEX NAME)

PAGE 1-B

− OBu-t

RN 657431-56-6 HCAPLUS

CN Benzenepropanoic acid, 2-[(4-chlorophenyl)methoxy]-4-[2-[[2-[[(1,1-dimethylethoxy)carbonyl]methylamino]-4-[(tetrahydro-2H-pyran-4-yl)oxy]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

RN 657431-60-2 HCAPLUS

CN Benzenepropanoic acid, 2-[(4-chlorophenyl)methoxy]-4-[2-[[2-[[(1,1-dimethylethoxy)carbonyl]methylamino]-4-[(1-methyl-3-piperidinyl)oxy]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

C1
$$CH_2-O-CH_2-C-NH$$

$$EtO-C-CH_2-CH_2$$

$$CH_2-O-CH_2-C-NH$$

$$CH_2-O-C-NH$$

$$CH_2-O-C-NH$$

$$CH_2-O-C-NH$$

$$CH_2-O-C-NH$$

$$CH_2-O-C-NH$$

$$CH_2-C-NH$$

$$CH_2-C-$$

RN 657431-64-6 HCAPLUS

CN Benzenepropanoic acid, 2-[(4-chlorophenyl)methoxy]-4-[2-[[2-[[(1,1-dimethylethoxy)carbonyl]methylamino]-4-[(tetrahydro-2H-thiopyran-4-

yl)oxy]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Cl} \\ \text{CH}_2-\text{O} \\ \text{CH}_2-\text{CH}_2 \\ \text{CH}_2-\text{CH}_2 \\ \text{O} \end{array} \begin{array}{c} \text{O} \\ \text{CH}_2-\text{C} \\ \text{NH} \\ \text{O} \end{array} \begin{array}{c} \text{S} \\ \text{D} \\ \text{O} \end{array}$$

RN 657431-68-0 HCAPLUS
CN Benzenepropanoic acid, 2-[(4-chlorophenyl)methoxy]-4-[2-[[2-[[(1,1-dimethylethoxy)carbonyl]methylamino]-4-[(1-methyl-3-pyrrolidinyl)oxy]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 657431-72-6 HCAPLUS

CN Benzenepropanoic acid, 2-[(4-chlorophenyl)methoxy]-4-[2-[[2-[[(1,1-dimethylethoxy)carbonyl]methylamino]-4-[2-(1-piperidinyl)ethoxy]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

C1
$$CH_2-O$$
 CH_2-C-NH $O-CH_2-CH_2$ $C-NH$ $O-CH_2-CH_2$ $O-CH_2-CH_2$ $O-CH_2-CH_2$ $O-CH_2-CH_2$

PAGE 1-B

RN 657431-76-0 HCAPLUS

CN Benzenepropanoic acid, 2-[(4-chlorophenyl)methoxy]-4-[2-[[2-[[(1,1-dimethylethoxy)carbonyl]methylamino]-4-[2-(4-morpholinyl)ethoxy]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

C1
$$CH_2-O-CH_2-C-NH$$

$$EtO-C-CH_2-CH_2$$

$$CH_2-CH_2-CH_2$$

$$CH_2-CH_2-CH_2$$

$$CH_2-CH_2-CH_2$$

$$CH_2-CH_2-CH_2$$

$$CH_2-CH_2-CH_2$$

PAGE 1-B

$$-N$$

RN 657431-88-4 HCAPLUS

CN Benzenepropanoic acid, 2-[(4-chlorophenyl)methoxy]-4-[2-[[2-[[(1,1-dimethylethoxy)carbonyl]methylamino]-4-[3-(4-morpholinyl)phenoxy]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

C1
$$EtO-C-CH_2-CH_2$$
 O $O-CH_2-C-NH N-C-OBu-t$ $Me O$

PAGE 1-B

RN 657431-93-1 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[3-[4-[[[3-[(4-chlorophenyl)methoxy]-4-(3-ethoxy-3-oxopropyl)phenoxy]acetyl]amino]-3-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenoxy]phenyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

CN

RN 657432-02-5 HCAPLUS

Benzenepropanoic acid, 2-[(4-chlorophenyl)methoxy]-4-[2-[[4-[3-[(1,1-dimethylethoxy)carbonyl][2-[[(1,1-dimethylethyl)dimethylsilyl]oxy]ethyl]amino]phenoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c} \text{Cl} \\ \text{CH}_2 - \text{O} \\ \text{CH}_2 - \text{C} \\ \text{O} \\ \text{EtO} - \text{C} - \text{CH}_2 - \text{CH}_2 \\ \text{O} \\ \text{O} \end{array}$$

PAGE 1-B

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−oBu-t
IC
     ICM C07D235-12
     ICS C07D401-12; C07D409-12; C07D471-04; C07D403-12; A61K031-4184;
         A61K031-4188; A61K031-4439; A61K031-4709; A61K031-454;
          A61K031-496; A61K031-5377; A61P001-04; A61P001-16;
         A61P001-18; A61P003-04; A61P003-06; A61P003-10; A61P007-00;
         A61P001-06
     28-17 (Heterocyclic Compounds (More Than One Hetero Atom))
CC
     Section cross-reference(s): 1
     resorcinol deriv prepn peroxisome proliferator activated
ST
     receptor gamma agonist; PPAR gamma agonist
     benzimidazolylalkoxyphenylpropanoic acid prepn;
    benzimidazolylmethoxyphenylpropionic acid prepn treatment
     diabetes; benzimidazolylethoxyphenylpropionic acid prepn
     treatment diabetes; impaired glucose tolerance treatment
     prevention benzimidazolylalkoxyphenylpropanoic acid prepn; obesity
     hyperlipemia treatment prevention benzimidazolylalkoxyphenylpropan
     oic acid prepn; diabetes complication treatment
    prevention benzimidazolylalkoxyphenylpropanoic acid prepn; insulin
     resistance improver benzimidazolylalkoxyphenylpropanoic acid
     prepn; blood sugar lowering benzimidazolylalkoxyphenylpropanoic
     acid prepn; cancer proliferation inhibitor
     benzimidazolylalkoxyphenylpropanoic acid prepn
IT
    Diabetes mellitus
        (diabetes complications; preparation of resorcinol derivs.
       as peroxisome proliferator-activated receptor (PPAR)
       γ-agonists, anticancer agents, or treatment or prevention
       of diabetes, impaired glucose tolerance, obesity, or
       hyperlipemia)
IT
     Antidiabetic agents
     Antiobesity agents
     Antitumor agents
      Diabetes mellitus
     Human
     Hyperglycemia
     Hypolipemic agents
     Neoplasm
     Obesity
        (preparation of resorcinol derivs. as peroxisome
       proliferator-activated receptor (PPAR) γ-agonists,
        anticancer agents, or treatment or prevention of
        diabetes, impaired glucose tolerance, obesity, or
       hyperlipemia)
IT
    Hyperlipidemia
        (preparation of resorcinol derivs. as peroxisome
       proliferator-activated receptor (PPAR) \gamma-agonists,
        anticancer agents, or treatment or prevention of
        diabetes, impaired glucose tolerance, obesity, or
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hyperlipemia)
IT
    Peroxisome proliferator-activated receptors
        (\gamma, agonists; preparation of resorcinol derivs. as
       peroxisome proliferator-activated receptor (PPAR)
       γ-agonists, anticancer agents, or treatment or prevention
       of diabetes, impaired glucose tolerance, obesity, or
       hyperlipemia)
IT
    50-99-7, D-Glucose, biological studies
        (impaired glucose tolerance; preparation of resorcinol derivs. as
       peroxisome proliferator-activated receptor (PPAR)
       \gamma-agonists, anticancer agents, or treatment or prevention
       of diabetes, impaired glucose tolerance, obesity, or
       hyperlipemia)
                   657429-25-9P
                                  657429-26-0P
                                                 657429-27-1P
IT
    657429-24-8P
                                  657429-30-6P
                                                 657429-31-7P
    657429-28-2P
                   657429-29-3P
    657429-32-8P
                   657429-33-9P
                                  657429-34-0P
                                                 657429-35-1P
                  657429-37-3P
                                  657429-38-4P
                                                 657429-39-5P
    657429-36-2P
    657429-40-8P
                  657429-41-9P
                                  657429-42-0P
                                                 657429-43-1P
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                                  657429-46-4P
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                  657429-49-7P
                                  657429-50-0P
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    657429-52-2P
                  657429-53-3P
                                  657429-54-4P
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                                  657429-66-8P
                                                 657429-67-9P
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                                                657429-75-9P
                                  657429-78-2P
    657429-76-0P
                  657429-77-1P
                                                 657429-79-3P
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                                  657429-82-8P
                                                657429-83-9P
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                   657429-85-1P
                                  657429-86-2P
                                                657429-87-3P
    657429-88-4P
                   657429-89-5P
                                  657429-90-8P
                                                657429-91-9P
    657429-92-0P
                   657429-93-1P
                                  657429-94-2P
                                                657429-95-3P
    657429-96-4P
                  657429-97-5P
                                  657429-98-6P
                                                657429-99-7P
    657430-00-7P
                  657430-01-8P
                                  657430-02-9P
                                               657430-03-0P
    657430-04-1P
                  657430-05-2P
                                  657430-06-3P 657430-07-4P
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                                  657430-14-3P
                                                 657430-15-4P
    657430-12-1P
                   657430-17-6P
                                  657430-59-6P
                                                 657430-72-3P
    657430-16-5P
        (preparation of resorcinol derivs. as peroxisome
       proliferator-activated receptor (PPAR) γ-agonists,
       anticancer agents, or treatment or prevention of
       diabetes, impaired glucose tolerance, obesity, or
       hyperlipemia)
    57-57-8, Oxetan-2-one 79-14-1, Glycolic acid, reactions
IT
     94-99-5, 2,4-Dichlorobenzyl chloride 95-01-2,
     2,4-Dihydroxybenzaldehyde 96-41-3, Cyclopentanol
                                                102-47-6,
    γ-Butyrolactone
                     100-39-0, Benzyl bromide
     3,4-Dichlorobenzyl chloride 103-63-9, 2-Bromoethylbenzene
     104-81-4, 4-Methylbenzyl bromide 104-83-6, 4-Chlorobenzyl
              106-52-5, 1-Methylpiperidin-4-ol 107-18-6, Allyl
     chloride
     alcohol, reactions 107-30-2, Chloromethyl methyl ether
     108-01-0, 2-Dimethylaminoethanol
                                      108-93-0, Cyclohexanol,
                124-63-0, Methanesulfonyl chloride
                                                     395-44-8,
     reactions
     2-Trifluoromethylbenzyl bromide 402-23-3, 3-
     Trifluoromethylbenzyl bromide
                                   402-49-3, 4-Trifluoromethylbenzyl
    bromide
              459-46-1, 4-Fluorobenzyl bromide
                                                502-41-0,
                   542-59-6, 2-Acetoxyethanol
                                                 589-15-1,
     Cycloheptanol
     4-Bromobenzyl bromide 591-27-5, 3-Aminophenol
                                                     622-40-2,
                          637-59-2, 1-Bromo-3-phenylpropane
     4-Morpholineethanol
     824-94-2, 4-Methoxybenzyl chloride 867-13-0,
    Diethylphosphonoacetic acid ethyl ester
                                             874-98-6,
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IT

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3-Methoxybenzyl bromide
                          877-88-3, 3,5-Dimethoxybenzyl bromide
939-26-4, 2-Naphthylmethyl bromide
                                   1592-20-7, 4-Vinylbenzyl
          1765-40-8, 1-Bromomethyl-2,3,4,5,6-pentafluorobenzene
1877-77-6, 3-Aminobenzyl alcohol
                                  2014-83-7, 2,6-Dichlorobenzyl
          2051-18-5, 4-Isopropylbenzyl chloride
                                                   2081-44-9
chloride
                                   2746-25-0, 4-Methoxybenzyl
2567-29-5, 4-Phenylbenzyl bromide
         3040-44-6, 2-(Piperidin-1-yl)ethanol
                                               3099-31-8,
bromide
                       3447-53-8, 4-Difluoromethoxybenzyl
3-Chloromethylpyridine
          3554-74-3, 1-Methylpiperidin-3-ol
bromide
                                             4377-41-7,
                          4392-24-9, Cinnamyl bromide 5292-43-3,
2-Chloromethylquinoline
                          5544-60-5, 4-Benzyloxybenzyl bromide
tert-Butyl bromoacetate
6653-80-1, 4-Ethoxybenzyl chloride
                                    7311-46-8,
                                  13220-33-2, 1-Methylpyrrolidin-3-
5-Bromo-2-chloromethylthiophene
                                        18880-00-7,
    16004-15-2, 4-Iodobenzyl bromide
4-tert-Butylbenzyl bromide
                            20034-71-3
                                          23784-96-5,
                                   24424-99-5, Di-tert-butyl
2-Chloro-5-chloromethylthiophene
             27292-49-5, 3-(Morpholin-4-yl)phenol
                                                     29683-23-6,
dicarbonate
                         34776-73-3, 2-Chloromethyl-5-
Tetrahydrothiopyran-4-ol
                38185-19-2, 4-Methylthiobenzyl bromide
methylthiophene
           50824-05-0, 4-Trifluoromethoxybenzyl bromide
50685-89-7
52289-93-7, 2-Methoxybenzyl bromide 53606-06-7
                                                   54751-01-8,
4-(Bromomethyl)pyridine 54777-65-0, 4-Acetylaminobenzyl chloride
57825-29-3, 2-Ethylbenzyl bromide
                                  57825-30-6, 4-Ethylbenzyl
                       70258-18-3, 2-Chloro-5-chloromethylpyridine
         59413-99-9
bromide
86864-60-0, (2-Bromoethoxy)-tert-butyldimethylsilane
109384-19-2, 4-Hydroxypiperidine-1-carboxylic acid tert-butyl
        158985-25-2, 4-(4-Hydroxyphenyl)piperazine-1-carboxylic
acid tert-butyl ester
                        170859-70-8, 4-Bromo-2-
chloromethylthiophene
                        172648-24-7
                                      185428-59-5
                                                    223134-15-4
299176-17-3
              301548-21-0
                            301548-22-1
                                          321595-75-9
              657431-19-1
                            657431-22-6
                                          657431-29-3
337914-79-1
657431-98-6
   (preparation of resorcinol derivs. as peroxisome
   proliferator-activated receptor (PPAR) \gamma-agonists,
  anticancer agents, or treatment or prevention of
   diabetes, impaired glucose tolerance, obesity, or
   hyperlipemia)
52085-14-0P, 4-Benzyloxy-2-hydroxybenzaldehyde
                                                 80754-22-9P
95332-26-6P, 2-Hydroxy-4-methoxymethoxybenzaldehyde
                                                      223133-34-4P
223133-36-6P
              223133-38-8P
                              314271-24-4P
                                             444646-76-8P
474295-91-5P
              515164-47-3P
                              515164-48-4P
                                             628334-62-3P
636563-05-8P
               657430-18-7P
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657430-29-0P
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657430-45-0P
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                              657430-64-3P
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                                                  657431-14-6P
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                    657431-12-4P
     657431-15-7P
                    657431-16-8P 657431-17-9P
                                                657431-18-0P
                                                  657431-24-8P
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                    657431-21-5P
                                   657431-23-7P
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                                                  657431-28-2P
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     657431-34-0P
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     657431-42-0P
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     657431-46-4P
                    657431-51-1P
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                                                  657431-53-3P
     657431-50-0P
                    657431-55-5P 657431-56-6P
                                                657431-57-7P
     657431-54-4P
     657431-58-8P
                    657431-59-9P 657431-60-2P
                                                657431-61-3P
                                                657431-65-7P
     657431-62-4P
                    657431-63-5P 657431-64-6P
     657431-66-8P
                    657431-67-9P 657431-68-0P
                                                657431-69-1P
                                                657431-73-7P
     657431-70-4P
                    657431-71-5P 657431-72-6P
                                                657431-77-1P
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                    657431-75-9P 657431-76-0P
                                   657431-80-6P
                                                  657431-81-7P
     657431-78-2P
                    657431-79-3P
                                                   657431-85-1P
     657431-82-8P
                    657431-83-9P
                                   657431-84-0P
     657431-86-2P
                    657431-87-3P 657431-88-4P
                                                657431-89-5P
                                   657431-92-0P 657431-93-1P
     657431-90-8P
                    657431-91-9P
                                                  657431-97-5P
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                                   657432-01-4P 657432-02-5P
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                                                  657432-10-5P
     657432-11-6P
                    657432-12-7P
                                   657432-13-8P
                                                  657432-14-9P
     657432-15-0P
                    657432-16-1P
                                   657432-17-2P
                                                  657432-18-3P
                                                  657432-22-9P
     657432-19-4P
                    657432-20-7P
                                   657432-21-8P
                                                  657432-26-3P
     657432-23-0P
                    657432-24-1P
                                   657432-25-2P
     657432-27-4P
                    657432-28-5P
                                   657432-29-6P
        (preparation of resorcinol derivs. as peroxisome
        proliferator-activated receptor (PPAR) γ-agonists,
        anticancer agents, or treatment or prevention of
        diabetes, impaired glucose tolerance, obesity, or
        hyperlipemia)
     9004-10-8, Insulin, biological studies
        (resistance; preparation of resorcinol derivs. as peroxisome
        proliferator-activated receptor (PPAR) \gamma-agonists,
        anticancer agents, or treatment or prevention of
        diabetes, impaired glucose tolerance, obesity, or
        hyperlipemia)
L32 ANSWER 8 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
                         2004:80638 HCAPLUS
ACCESSION NUMBER:
                         140:128152
```

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DOCUMENT NUMBER:
                         Preparation of benzoic acids, in particular
TITLE:
                         acetylaminobenzoic acids, as promoters of
                         nonsense mutation suppression in messenger RNA
                          (mRNA) and/or as modulators of translation
                         termination for treatment of related diseases
INVENTOR(S):
```

Wilde, Richard G.; Welch., Ellen M.; Takasugi, James Jan; Almstead, Neil G.; Rubenstein,

Steven Marc; Beckmann, Holger

PATENT ASSIGNEE(S): PTC Therapeutics, Inc., USA; Tularik Inc.

PCT Int. Appl., 112 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent

ΙT

LANGUAGE:

GI

English

OTHER SOURCE(S): MARPAT 140:128152

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004009533	Al	20040129	WO 2003-US23183	2003 0723
			SA, BB, BG, BR, BY, BZ,	
GB, GD, GE, KP, KR, KZ,	GH, GM LC, LK	, HR, HU, , LR, LS,	DK, DM, DZ, EC, EE, ES, ID, IL, IN, IS, JP, KE, LT, LU, LV, MA, MD, MG,	KG, MK,
	SG, SK	, SL, SY,	OM, PG, PH, PL, PT, RO, TJ, TM, TN, TR, TT, TZ, ZM, ZW	
AZ, BY, KG, DE, DK, EE,	KZ, MD ES, FI	, RU, TJ, , FR, GB,	SL, SZ, TZ, UG, ZM, ZW, TM, AT, BE, BG, CH, CY, GR, HU, IE, IT, LU, MC,	CZ, NL,
PT, RO, SE, GQ, GW, ML, CA 2493457		, SN, TD,		GN,
			<	2003 0723
AU 2003254157	A1	20040209	AU 2003-254157	2003 0723
EP 1525185	A1	20050427	< EP 2003-766013	2003
			<	0723
			GB, GR, IT, LI, LU, NL, RO, MK, CY, AL, TR, BG,	
PRIORITY APPLN. INFO.:				2002 0724
			< WO 2003-US23183	V 2003 0723

USHA SHRESTHA EIC 1600 REM 1A64

Ι

II

AB Title compds. I [wherein X = O, S, CO, SO, SO2; Y = O, S; Z = O(un) substituted hetero/aryl, cycloalkyl; W = (CH2)n; n = 0-4; R1 = H, SO2H and derivs., CF3, CN, CO2H and derivs., CHO and derivs., (un) substituted alk(en/yn)yl, hetero/cycloalkyl, hetero/aryl; R0 = H or ROCCNR1 = 5-7 membered heterocyclyl or heteroaryl ring; R2, R3, R4, R5 = independently H, halo, CF3, OCF3, OCHF2, CN, CO2H and derivs., SO2H and derivs., NO2, NH2 and derivs., (un) substituted alk(en/yn)yl, (un)substituted hetero/cycloalkyl, hetero/aryl, alkoxy, hetero/aryloxy; R6 = H, (un) substituted cyclo/heterocyclo/alkyl, hetero/aryl, or any biohydrolyzable group; their pharmaceutical acceptable salts, hydrates, clathrates, prodrugs, polymorphs, and stereoisomers] were prepared as promoters of nonsense mutation suppression in mRNA (mRNA) and/or as modulators of translation termination. For example, II was prepared in 3 steps by acylation of Me 3-aminobenzoate with bromoacetyl bromide in the presence of DIPEA/THF, O-arylation of 4-isopropyl-3-methylphenol with the bromide intermediate in the presence of K2CO3/2-butanone, and demethylation. II showed both very high potency and efficacy of protein synthesis in a cell-based luciferase assay (no data). Thus, I are useful for treating or preventing a disease ameliorated by modulation of premature translation termination or nonsense-mediated mRNA decay, or ameliorating one or more symptoms associated therewith. IT

649773-67-1P, 3-[[2-(4-Propylphenyloxy)acetyl]amino]benzoi c acid 649774-21-0P, 3-[[2-[(4-

Cyanomethylphenyl)oxy]acetyl]amino]benzoic acid (promotor of nonsense mutation suppression; preparation of benzoic acids, in particular acetylaminobenzoic acids, as promoters of nonsense mutation suppression in mRNA and/or as modulators of translation termination)

ŔŊ 649773-67-1 HCAPLUS

Benzoic acid, 3-[[(4-propylphenoxy)acetyl]amino]- (9CI) (CA INDEX CN NAME)

IC ICM C07C235-24

ICS C07C323-63; C07C327-42; C07D207-273; C07D405-12; C07D317-64; C07D213-64; C07D209-48; C07D239-38; C07D257-04; C07D271-06;

A61K031-16; A61K031-33; A61P003-00; A61P007-00

CC 25-17 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

Section cross-reference(s): 1, 63

IT Anti-Alzheimer's agents

Anti-inflammatory agents

Antiarthritics

Anticholesteremic agents

Antidiabetic agents

Antiobesity agents

Antiparkinsonian agents

Antirheumatic agents

Antitumor agents

Human

Nervous system agents

(preparation of benzoic acids, in particular acetylaminobenzoic acids, as promoters of nonsense mutation suppression in mRNA and/or as modulators of translation termination)

IT Acute B-cell leukemia

Acute T-cell leukemia

Acute lymphocytic leukemia

Acute myeloid leukemia

Acute myeloid leukemia

Acute myelomonocytic leukemia

Acute promyelocytic leukemia

Adrenal gland, neoplasm

Aging, animal

Alzheimer's disease

Amyloidosis

Arthritis

Atherosclerosis

Blood, disease

Bone, neoplasm

Brain, neoplasm

Carcinoma

Central nervous system, disease

IT

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Chronic lymphocytic leukemia
Chronic myeloid leukemia
Cirrhosis
Cystic fibrosis
  Diabetes mellitus
Dwarfism
Esophagus, neoplasm
Eye, neoplasm
Familial hypercholesterolemia
Hairy cell leukemia
Head and Neck, neoplasm
Head and Neck, neoplasm
Heart, disease
Hematopoietic neoplasm
Hyperthyroidism
Hypothyroidism
Immunodeficiency
Inflammation
Intestine, neoplasm
Kidney, disease
Kidney, neoplasm
Liver, neoplasm
Lung, neoplasm
Mammary gland, neoplasm
Marfan syndrome
Melanoma
Mouth, neoplasm
Multiple myeloma
Multiple sclerosis
Muscular dystrophy
Neoplasm
Neuroglia, neoplasm
Niemann-Pick disease
Obesity
Ovary, neoplasm
Pancreas, neoplasm
Parkinson's disease
Pharynx, neoplasm
Prostate gland, neoplasm
Rheumatoid arthritis
Sarcoma
Skin, neoplasm
Stomach, neoplasm
Testis, neoplasm
   (treatment; preparation of benzoic acids, in particular
   acetylaminobenzoic acids, as promoters of nonsense mutation
   suppression in mRNA and/or as modulators of translation
   termination)
70853-28-0P, 3-[[2-(4-Chlorophenoxy)acetyl]amino]benzoic acid
82157-40-2P, 3-[[2-(p-Tolyloxy)acetyl]amino]benzoic acid
303773-82-2P, 3-[[2-[(Naphthalen-2-yl)oxy]acetyl]amino]benzoic
       304890-52-6P, 3-[[2-(2-Isopropylphenyloxy)acetyl]amino]benz
           319489-60-6P, 3-[[2-(3,4-Dimethylphenoxy)acetyl]amino]b
              397281-31-1P, 3-[[2-(4-Bromophenoxy)acetyl]amino]ben
enzoic acid
zoic acid
          397281-40-2P, 3-[[2-(4-Phenoxyphenoxy)acetyl]amino]ben
            397282-38-1P, 3-[[2-(4-Acetylphenyloxy)acetyl]amino]be
zoic acid
            405921-06-4P, 3-[[2-(4-tert-
nzoic acid
Butylphenoxy) acetyl] amino] benzoic acid
                                        405924-15-4P,
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3-[[2-[4-(1-Methyl-1-phenylethyl)phenoxy]acetyl]amino]benzoic acid

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405924-18-7P, 3-[[2-[(4'-Methyl-1,1'-biphen-4-
yl)oxy]acetyl]amino]benzoic acid
                                  446829-09-0P,
3-[[2-(4-Isopropyl-3-methylphenoxy)acetyl]amino]benzoic acid
447428-17-3P, 3-[[2-[(1,1'-Biphen-4-yl)oxy]acetyl]amino]benzoic
       459130-15-5P, 3-[[2-(3-Isopropylphenoxy)acetyl]amino]benzoi
        649773-59-1P, 3-[[2-[(2-Isopropylphenyl)sulfanyl]acetyl]a
c acid
                  649773-60-4P, 3-[[2-(3-Isopropyl-5-
mino|benzoic acid
                                          649773-61-5P,
methylphenoxy)acetyl]amino]benzoic acid
3-[[2-(4-Isopropylphenyloxy)acetyl]amino]benzoic acid
649773-62-6P, 3-[[2-(4-Isopropyl-3-methylphenoxy)-1-
thioxoethyl]amino]benzoic acid 649773-63-7P,
3-[[2-[(2'-Methyl-1,1'-biphen-4-yl)oxy]acetyl]amino]benzoic acid
649773-64-8P, 3-[[2-[(3'-Methyl-1,1'-biphen-4-
yl)oxy]acetyl]amino]benzoic acid
                                   649773-65-9P,
3-[[2-(3,4-Dichlorophenoxy)acetyl]amino]benzoic acid
649773-66-0P, 3-[[2-[4-(1,1-Dimethylpropyl)phenoxy]acetyl]amino]be
nzoic acid 649773-67-1P, 3-[[2-(4-
Propylphenyloxy) acetyl] amino] benzoic acid
                                            649773-68-2P,
3-[[2-(4-Trifluoromethylphenyloxy)acetyl]amino]benzoic acid
649773-69-3P, 3-[[2-(4-Ethylphenyloxy)acetyl]amino]benzoic acid
649773-70-6P, 3-[[2-[(Indan-5-yl)oxy]acetyl]amino]benzoic acid
649773-71-7P, 3-[[2-[(5,6,7,8-Tetrahydronaphthalen-2-
yl)oxy]acetyl]amino]benzoic acid
                                   649773-72-8P,
3-[[2-(4-Trifluoromethoxyphenoxy)acetyl]amino]benzoic acid
649773-73-9P, 3-[2-(4-Cyclopentylphenoxy)acetylamino]benzoic acid
649773-74-0P, 3-[[2-(4-Chloro-3-methylphenyloxy)acetyl]amino]benzo
          649773-75-1P, 3-[[2-(4-Iodophenoxy)acetyl]amino]benzoic
       649773-76-2P, 3-[[2-(4-Ethoxyphenoxy)acetyl]amino]benzoic
acid
       649773-77-3P, 3-[[2-[[4-(Phenylethynyl)phenyl]oxy]acetyl]am
acid
ino]benzoic acid
                   649773-78-4P, 3-[[3-(4-Isopropylphenyl)-3-
oxopropionyl]amino]benzoic acid
                                  649773-79-5P,
2-Chloro-3-[[2-[(4-isopropyl-3-methylphenyl)oxy]acetyl]amino]benzo
         649773-80-8P, 4-Chloro-3-[[2-[(4-isopropyl-3-
methylphenyl)oxy]acetyl]amino]benzoic acid
                                             649773-81-9P,
3-[[2-(4-Benzoylphenyloxy)acetyl]amino]benzoic acid
649773-82-0P, 3-[3-(4-Isopropylphenyloxy)-2-oxopyrrolidin-1-
                 649773-83-1P, 3-[3-(4-Isopropylphenyloxy)-2-
vllbenzoic acid
oxopyrrolidin-1-yl]benzoic acid sodium Salt
                                              649773-84-2P,
3-[3-[(Indan-5-yl)oxy]-2-oxopyrrolidin-1-yl]benzoic acid
649773-85-3P, 3-[3-[(Benzo[1,3]dioxol-5-yl)oxy]-2-oxopyrrolidin-1-
yl]benzoic acid
                  649773-86-4P, 3-[2-0xo-3-[4-(4-
trifluoromethylphenyloxy)phenoxy]pyrrolidin-1-yl]benzoic acid
649773-87-5P, 3-[3-(3-Ethylphenyloxy)-2-oxopyrrolidin-1-yl]benzoic
       649773-88-6P, 3-[2-0xo-3-(4-phenoxyphenoxy)pyrrolidin-1-
acid
                 649773-89-7P, 3-[[2-[(2-Isopropyl-5-
yl]benzoic acid
methylphenyl)oxy]acetyl]amino]benzoic acid
                                            649773-90-0P,
3-[[2-[(2-Isopropyl-5-methylphenyl)oxy]propionyl]amino]benzoic
acid
       649773-91-1P, 3-[[2-(5-Methylphenyloxy)acetyl]amino]benzoic
       649773-92-2P, 3-[[2-[(2-Isopropyl-5-
methylphenyl)oxy]acetyl]amino]-4-methoxybenzoic acid
649773-93-3P, 3-[[2-[(5-Isopropyl-2-methylphenyl)oxy]acetyl]amino]
benzoic acid
               649773-94-4P, 3-[[2-[(4-Isopropyl-3-
methylphenyl)oxy]acetyl]amino]benzoic acid Sodium salt
649773-95-5P, 3-[[2-[(4-Isopropyl-3-methylphenyl)oxy]propionyl]ami
                  649773-96-6P, 3-[[2-[(4-Isopropyl-3-
no]benzoic acid
methylphenyl)oxy]acetyl]amino]-4-methylbenzoic acid
649773-97-7P, 3-[[2-(4-Carboxyphenoxy)acetyl]amino]benzoic acid
649773-98-8P, 3-[[2-[(Benzo[1,3]dioxol-5-
yl)oxy]acetyl]amino]benzoic acid
                                  649773-99-9P,
3-[[2-(4-Chloro-3-fluorophenoxy)acetyl]amino]benzoic acid
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649774-00-5P, 3-[[2-[(4-Hydroxymethylphenyl)oxy]acetyl]amino]benzo
              649774-01-6P, 2-Hydroxy-5-[[2-[(4-isopropyl-3-
     methylphenyl)oxy]acetyl]amino]benzoic acid
                                                  649774-02-7P,
     2-Chloro-5-[[2-[(4-isopropyl-3-methylphenyl)oxy]acetyl]amino]benzo
              649774-03-8P, 2,3,6-Trifluoro-5-[[2-[(4-isopropyl-3-
     methylphenyl)oxy]acetyl]amino]benzoic acid 649774-04-9P,
     3-[[2-[(4-Isopropyl-3-methylphenyl)oxy]acetyl]amino]-2-
     methylbenzoic acid
                        649774-05-0P, 3-[[2-[4-(2-
     Ethoxycarbonylvinyl)phenoxy]acetyl]amino]benzoic acid
     649774-06-1P, 3-[[2-[4-(Benzyloxy)phenoxy]acetyl]amino]benzoic
            649774-07-2P, 3-[[2-(4-Cyanophenoxy)acetyl]amino]benzoic
     acid
            649774-08-3P, 3-[[2-[4-[(5-Nitropyridin-2-
    yl)amino]phenoxy]acetyl]amino]benzoic acid
                                                  649774-09-4P,
     3-[[2-[4-(Benzoylamino)phenoxy]acetyl]amino]benzoic acid
     649774-10-7P, 3-[[2-[4-(Phenylamino)phenoxy]acetyl]amino]benzoic
            649774-11-8P, 3-[[2-[3-(Phenylamino)phenoxy]acetyl]amino]be
     nzoic acid
                649774-12-9P, 3-[[2-[4-(2,4-
    Dinitrophenylamino)phenoxy]acetyl]amino]benzoic acid
     649774-13-0P, 3-[[2-[4-(4-Trifluoromethylphenyloxy)phenoxy]acetyl]
     amino]benzoic acid 649774-14-1P, 3-[[2-(4-
     Benzylphenyloxy) acetyl] amino] benzoic acid 649774-15-2P,
     3-[[2-[(5-Nitropyridin-2-yl)oxy]acetyl]amino]benzoic acid
     649774-16-3P, 3-[[2-[4-[(1,3-Dioxo-1,3-dihydroisoindol-2-
    yl)methyl]phenoxy]acetyl]amino]benzoic acid
                                                 649774-17-4P,
     3-[[2-[4-[[4-(1,3-Dioxo-1,3-dihydroisoindol-2-
    yl)butoxy]methyl]phenoxy]acetyl]amino]benzoic acid
                                                          649774-18-5P,
     3-[[2-[4-[[(4,6-Dimethylpyrimidin-2-yl)sulfanyl]methyl]phenoxy]ace
     tyl]amino]benzoic acid 649774-19-6P, 3-[3-(4-Chlorophenoxy)-2-
     oxo-pyrrolidin-1-yl]benzoic acid
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     3-[3-(4-Bromophenoxy)-2-oxo-pyrrolidin-1-yl]benzoic acid
     649774-21-0P, 3-[[2-[(4-Cyanomethylphenyl)oxy]acetyl]amino
     ]benzoic acid 649774-22-1P, 3-[[2-[4-[(2H-Tetrazol-5-
    yl)methyl]phenoxy]acetyl]amino]benzoic acid 649774-23-2P,
     3-[3-(4-Isopropylbenzyloxy)-2-oxopyrrolidin-1-yl]benzoic acid
     649774-24-3P, 3-[3-(4-Nitrophenoxy)-2-oxopyrrolidin-1-yl]benzoic
           649774-25-4P, 3-[3-(4-Methoxyphenoxy)-2-oxopyrrolidin-1-
     yl]benzoic acid 649774-26-5P, 3-[[2-[4-[(5-Phenyl-
     [1,3,4]oxadiazol-2-yl)methyl]phenoxy]acetyl]amino]benzoic acid
     649774-27-6P, 3-[3-(4-Ethylphenyloxy)-2-oxopyrrolidin-1-yl]benzoic
           649774-28-7P, 3-[3-(4-Methylphenyloxy)-2-oxopyrrolidin-1-
    yl]benzoic acid 649774-29-8P, 3-[2-0xo-3-(2,3,5-trifluoro-4-
     methylphenyloxy)pyrrolidin-1-yl]benzoic acid 649774-30-1P,
     3-[2-0xo-3-(4-trifluoromethoxyphenoxy)pyrrolidin-1-yl]benzoic acid
     649774-31-2P, 3-[3-[(3-Isopropyl-5-methylphenyl)oxy]-2-
     oxopyrrolidin-1-yl]benzoic acid
                                     649774-32-3P,
     3-[3-(4-tert-Butylphenoxy)-2-oxopyrrolidin-1-yl]benzoic acid
     649774-33-4P, 3-[3-(3,4-Dimethylphenoxy)-2-oxopyrrolidin-1-
     yl]benzoic acid 649774-34-5P, 3-[N-[2-[(4-Isopropyl-3-
     methylphenyl)oxy]acetyl]-N-methylamino]benzoic acid
        (promotor of nonsense mutation suppression; preparation of benzoic
        acids, in particular acetylaminobenzoic acids, as promoters of
        nonsense mutation suppression in mRNA and/or as modulators of
        translation termination)
REFERENCE COUNT:
                         12
                               THERE ARE 12 CITED REFERENCES AVAILABLE
                               FOR THIS RECORD. ALL CITATIONS AVAILABLE
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L32 ANSWER 9 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:2679 HCAPLUS

DOCUMENT NUMBER: 140:76898

IN THE RE FORMAT

TITLE:

Preparation of benzoic acid derivatives as modulators of PPAR- α and PPAR- γ

INVENTOR(S):

PATENT ASSIGNEE(S):

SOURCE:

LANGUAGE:

Li, Lanna Astrazeneca AB, Swed.; Astrazeneca UK Limited PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	TENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO	2004000295	A1	20031231	WO 2003-GB2598	2003 0617
	CH, CN, CC GB, GD, GE KP, KR, KZ MN, MW, MX SC, SD, SE US, UZ, VC RW: GH, GM, KE AZ, BY, KC	CR, CU, GH, GM, LC, LK, MZ, NI, SG, SK, VN, YU, LS, MW, KZ, MD	, CZ, DE, , HR, HU, , LR, LS, , NO, NZ, , SL, TJ, , ZA, ZM, , MZ, SD, , RU, TJ,	SL, SZ, TZ, UG, ZM, ZW, TM, AT, BE, BG, CH, CY,	FI, KG, MK, RU, UG, AM, CZ,
C A	PT, RO, SE GQ, GW, MI	S, SI, SK J, MR, NE	TR, BF,		
CA	2490687	AA	20031231	CA 2003-2490687	2003 0617
AU	2003240101	A1	20040106	AU 2003-240101	2003 0617
BR	2003011840	A	20050315	< BR 2003-11840	2003 0617
EP	1517680	A1	20050330	< EP 2003-732715	2003 0617
	•	, si, lī		GB, GR, IT, LI, LU, NL, RO, MK, CY, AL, TR, BG,	•
CN	1662230	А	20050831	CN 2003-814319	2003 0617
JP	2006502105	Т2	20060119		2003 0617
NZ	536972	A	20060630	< NZ 2003-536972	2003 0617

NO 2004005222	А	20050119	NO	< 2004-5222		
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ZA 2004009690	Α	20051011	ZA	2004-9690		
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US 2005267149	A1	20051201	US	2004-518819		
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PRIORITY APPLN. INFO.:			SE	2002-1937	Α	
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						0620
				<		
			WO	2003-GB2598	W	
				2112 22200	••	2003
						0617
						0017

OTHER SOURCE(S):

MARPAT 140:76898

GI

$$HO_2C$$
 HN
 O
 II

AB Title compds. I [R1 = (un)substituted aryl, alkyl, acyl, etc.; (CH2)m-T-(CH2)n-U-(CH2)p = attached at either the meta or para position (to V) and is O(CH2)2, O(CH2)3, etc.; V = O, S, amino, single bond; q = 1-3; W = O, S, amido, amino, single bond; R2 = halo, alkyl, alkoxy, etc.; r = 0-3; R3 = halo, alkyl, alkoxy, etc.; s = 0-3; with some provisions] are prepared For instance, tert-Bu [3-[[(1,1'-biphenyl-4-yl)carbonyl]amino]methyl]phenyl]car

bamate (preparation given) is deprotected (CH2Cl2, TFA) and alkylated with 3-carboxybenzaldehyde (HOAc, NaBH4) to give II. Compds. of the invention have an EC50 < 50μ mol/L for PPAR- α and PPAR- γ . I are useful in treating clin. conditions associated with insulin resistance.

637358-95-3P, 2-[[2-[3-[2-[Benzyl(hexyl)amino]-2oxoethoxy]phenyl]ethyl]thio]benzoic acid 637359-18-3P, 2-[2-[4-[2-[Isobutyl[4-(trifluoromethyl)benzyl]amino]-2oxoethoxy]phenyl]ethoxy]benzoic acid (preparation of benzoic acid derivs. as modulators of PPAR- α

and PPAR- γ)

RN637358-95-3 HCAPLUS

CN Benzoic acid, 2-[[2-[3-[2-[hexyl(phenylmethyl)amino]-2oxoethoxy]phenyl]ethyl]thio]- (9CI) (CA INDEX NAME)

637359-18-3 HCAPLUS RN

Benzoic acid, 2-[2-[4-[2-[(2-methylpropyl)][[4-CN(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]phenyl]ethoxy]-(9CI) (CA INDEX NAME)

IT 637358-94-2P, Methyl 2-[[2-[3-[2-[benzyl(hexyl)amino]-2oxoethoxy]phenyl]ethyl]thio]benzoate 637359-17-2P,... Methyl 2-[2-[4-[2-[isobutyl[4-(trifluoromethyl)benzyl]amino]-2oxoethoxy]phenyl]ethoxy]benzoate

(preparation of benzoic acid derivs. as modulators of PPAR- α and PPAR- γ)

RN637358-94-2 HCAPLUS

Benzoic acid, 2-[[2-[3-[2-[hexyl(phenylmethyl)amino]-2-CN oxoethoxy]phenyl]ethyl]thio]-, methyl ester (9CI) (CA INDEX NAME)

RN 637359-17-2 HCAPLUS CN Benzoic acid, 2-[2-[4-[2-[(2-methylpropyl)][[4-

(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]phenyl]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

IC ICM A61K031-19

> ICS A61P003-06; A61P003-10; C07C065-24; C07C233-78; C07C235-34; C07C309-66; C07C311-13; C07C323-62; C07D213-40; C07D217-06; C07D277-56; C07D307-68; C07D233-60

25-17 (Benzene, Its Derivatives, and Condensed Benzenoid CC Compounds)

Section cross-reference(s): 1, 63

Peroxisome proliferator-activated receptors TT

 $(\alpha;$ preparation of benzoic acid derivs. as modulators of PPAR- α and PPAR- γ)

Peroxisome proliferator-activated receptors IT

 $(\gamma;$ preparation of benzoic acid derivs. as modulators of PPAR- α and PPAR- γ)

637358-29-3P, 3-[[[3-[[[(1,1'-Biphenyl-4-ΙT yl)carbonyl]amino]methyl]phenyl]amino]methyl]benzoic acid 637358-31-7P, 2-[[4-[2-Oxo-2-[[4-(trifluoromethyl)benzyl]amino]eth yl]phenoxy]methyl]benzoic acid 637358-36-2P, 2-[[3-[2-[Benzyl(hexyl)amino]-2-oxoethyl]phenoxy]methyl]benzoic 637358-40-8P, 2-[[3-[2-0xo-2-[[4-(trifluoromethyl)benzyl]amino]ethyl]phenoxy]methyl]benzoic acid

637358-44-2P, 2-[[4-[3-[[2-(3,4-Dimethoxyphenyl)ethyl](methyl)amin o]-3-oxopropyl]phenoxy]methyl]benzoic acid 637358-47-5P, 2-[[4-[2-[[[4-Methyl-2-[4-(trifluoromethyl)phenyl]-1,3-thiazol-5-

yl]carbonyl]amino]ethyl]phenoxy]methyl]benzoic acid

637358-49-7P, 2-[[4-[2-[[[(2,4-Difluorophenyl)amino]carbonyl]amino]ethyl]phenoxy]methyl]benzoic acid 637358-51-1P,

2-[[4-[2-[[(2-Methyl-5-phenylfuran-3-yl)carbonyl]amino]ethyl]pheno xy]methyl]benzoic acid 637358-53-3P, 2-[[4-[2-

[(Benzylsulfonyl)amino]ethyl]phenoxy]methyl]benzoic acid

637358-56-6P, 2-[[4-[2-[Benzyl(hexyl)amino]-2-oxoethyl]-2-

fluorophenoxy]methyl]benzoic acid 637358-59-9P, 2-[[4-[2-[Benzyl(hexyl)amino]-2-oxoethyl]-2-

methoxyphenoxy]methyl]benzoic acid 637358-62-4P,

2-[[4-[3-(1,2,3,4-Tetrahydroisoquinolin-2-yl)-3-

oxopropyl]phenoxy]methyl]benzoic acid 637358-66-8P,

2-[[4-[2-[4-(1H-Imidazol-1-yl)phenoxy]ethyl]phenoxy]methyl]benzoic 637358-70-4P, 2-[[4-[2-[4-[(Methylsulfonyl)oxy]phenoxy]ethy l]phenoxy]methyl]benzoic acid 637358-73-7P, 2-[[3-[2-[4-

(Benzyloxy)phenoxy]ethyl]phenoxy]methyl]benzoic acid

637358-76-0P, 2-[[3-[2-[4-[(Methylsulfonyl)oxy]phenoxy]ethyl]pheno

xy]methyl]benzoic acid 637358-77-1P, 2-[[3-[2-(4-

Hydroxyphenoxy)ethyl]phenoxy]methyl]benzoic acid 637358-79-3P. 2-[[4-[3-[4-(Benzyloxy)phenoxy]propyl]phenoxy]methyl]benzoic acid

 $637358-82-8P, \ 2-[[4-[3-[4-[(Methylsulfonyl)oxy]phenoxy]propyl]phen$ oxy]methyl]benzoic acid 637358-83-9P, 2-[[4-[3-(4-

Hydroxyphenoxy)propyl]phenoxy]methyl]benzoic acid 637358-86-2P,

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2-[[4-[3-[[2-(2-Ethoxyphenyl)ethyl]amino]-3-
    oxopropyl]phenoxy]methyl]benzoic acid
                                           637358-89-5P,
    2-[[4-[3-[Ethyl(2-(pyridin-2-yl)ethyl)amino]-3-
    oxopropyl]phenoxy]methyl]benzoic acid 637358-95-3P,
    2-[[2-[3-[2-[Benzyl(hexyl)amino]-2-oxoethoxy]phenyl]ethyl]thio]ben
                637358-98-6P, 2-[[4-[2-[Heptyl[2-(2-
    zoic acid
    methoxyphenyl)ethyl]amino]-2-oxoethyl]phenoxy]methyl]benzoic acid
    637359-01-4P, 2-[[4-[2-[[2-(4-Chlorophenyl)ethyl](heptyl)amino]-2-
    oxoethyl]phenoxy]methyl]benzoic acid
                                          637359-04-7P,
    2-[[4-[2-[Heptyl(2-phenylethyl)amino]-2-
    oxoethyl]phenoxy]methyl]benzoic acid
                                            637359-07-0P,
    2-[[4-[2-[Ethyl(2-fluorobenzyl)amino]-2-
    oxoethoxy]phenoxy]methyl]benzoic acid
                                             637359-10-5P,
    2-[[4-[2-[Ethyl(2-fluorobenzyl)amino]-2-
    oxoethyl]benzyl]oxy]benzoic acid
                                        637359-12-7P,
    2-[[4-[2-[Heptyl(2-phenylethyl)amino]-2-
    oxoethyl]benzyl]oxy]benzoic acid
                                        637359-14-9P,
    2-[[4-[2-[[2-(4-Chlorophenyl)ethyl](heptyl)amino]-2-
    oxoethyl]benzyl]oxy]benzoic acid 637359-18-3P,
    2-[2-[4-[2-[Isobuty1[4-(trifluoromethyl)benzy1]amino]-2-
    oxoethoxy]phenyl]ethoxy]benzoic acid
        (preparation of benzoic acid derivs. as modulators of PPAR-\alpha
       and PPAR-\gamma)
    135810-05-8P, Methyl 2-[[4-(3-hydroxypropyl)phenoxy]methyl]benzoat
TΤ
        211917-72-5P, Methyl 2-[[4-[2-[(tert-
    butoxycarbonyl) amino] ethyl] phenoxy] methyl] benzoate
                                                          265996-88-1P,
    N-Heptyl-2-phenylacetamide
                                 348613-09-2P, N-Heptyl-2-(2-
                              349428-15-5P, 2-(4-Chlorophenyl)-N-
    methoxyphenyl)acetamide
                      637358-27-1P, tert-Butyl [3-[[[(1,1'-biphenyl-4-
    heptylacetamide
    yl)carbonyl]amino]methyl]phenyl]carbamate
                                                637358-28-2P,
    N-(3-Aminobenzyl)-1,1'-biphenyl-4-carboxamide
                                                     637358-30-6P,
    Methyl 2-[[4-[2-oxo-2-[[4-(trifluoromethyl)benzyl]amino]ethyl]phen
                          637358-32-8P, [3-[[2-
    oxy]methyl]benzoate
     (Methoxycarbonyl)benzyl]oxy]phenyl]acetic acid
                                                      637358-34-0P,
    Methyl 2-[[3-[2-[benzyl(hexyl)amino]-2-
    oxoethyl]phenoxy]methyl]benzoate
                                        637358-38-4P, Methyl
     2-[[3-[2-oxo-2-[(4-trifluoromethylbenzyl)amino]ethyl]phenoxy]methy
                  637358-42-0P, N-[2-(3,4-Dimethoxyphenyl)ethyl]-3-(4-
    l]benzoate
    hydroxyphenyl) -N- (methyl) propanamide
                                            637358-43-1P, Methyl
    2-[[4-[3-[2-(3,4-dimethoxyphenyl)ethyl(methyl)amino]-3-
    oxopropyl]phenoxy]methyl]benzoate
                                         637358-45-3P, Methyl
    2-[[4-(2-aminoethyl)phenoxy]methyl]benzoate hydrochloride
    637358-46-4P, Methyl 2-[[4-[2-[[[4-methyl-2-(4-
     (trifluoromethy1)pheny1)thiazol-5-y1]carbony1]amino]ethy1]phenoxy]
                       637358-48-6P, Methyl 2-[[4-[2-[[[(2,4-
    methyl]benzoate
    difluorophenyl)amino]carbonyl]amino]ethyl]phenoxy]methyl]benzoate
    637358-50-0P, Methyl 2-[[4-[2-[[(2-methyl-5-phenylfuran-3-
    yl)carbonyl]amino]ethyl]phenoxy]methyl]benzoate
                                                      637358-52-2P,
    Methyl 2-[[4-[2-[(benzylsulfonyl)amino]ethyl]phenoxy]methyl]benzoa
         637358-54-4P, N-Benzyl-2-(3-fluoro-4-hydroxyphenyl)-N-
                     637358-55-5P, Methyl 2-[[4-[2-
    hexylacetamide
     [benzyl(hexyl)amino]-2-oxoethyl]-2-fluorophenoxy]methyl]benzoate
    637358-57-7P, N-Benzyl-N-hexyl-2-(4-hydroxy-3-
    methoxyphenyl)acetamide
                               637358-58-8P, Methyl
    2-[[4-[2-[benzyl(hexyl)amino]-2-oxoethyl]-2-
     (methoxy) phenoxy] methyl] benzoate
                                        637358-60-2P
                                                       637358-61-3P
     637358-63-5P, Methyl 2-[[4-(2-hydroxyethyl)phenoxy]methyl]benzoate
    637358-64-6P, Methyl 2-[[4-[2-[(methylsulfonyl)oxy]ethyl]phenoxy]m
    ethyl]benzoate
                     637358-65-7P, Methyl 2-[[4-[2-[4-(1H-imidazol-1-
    yl)phenoxy]ethyl]phenoxy]methyl]benzoate 637358-67-9P, Methyl
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2-[[4-[2-[4-(benzyloxy)phenoxy]ethyl]phenoxy]methyl]benzoate
     637358-69-1P, Methyl 2-[[4-[2-[4-[(methylsulfonyl)oxy]phenoxy]ethy
                                 637358-71-5P, Methyl
     l]phenoxy]methyl]benzoate
     2-[[3-(2-hydroxyethyl)phenoxy]methyl]benzoate
                                                     637358-72-6P,
     Methyl 2-[[3-[2-[4-(benzyloxy)phenoxy]ethyl]phenoxy]methyl]benzoat
         637358-74-8P, Methyl 2-[[3-[2-(4-hydroxyphenoxy)ethyl]phenoxy]
                       637358-75-9P, Methyl 2-[[3-[2-[4-
     methyl]benzoate
     [(methylsulfonyl)oxy]phenoxy]ethyl]phenoxy]methyl]benzoate
     637358-78-2P, Methyl 2-[[4-[3-[4-(benzyloxy)phenoxy]propyl]phenoxy
                       637358-80-6P, Methyl 2-[[4-[3-(4-
     ]methyl]benzoate
     hydroxyphenoxy)propyl]phenoxy]methyl]benzoate
                                                   637358-81-7P,
     Methyl 2-[[4-[3-[4-[(methylsulfonyl)oxy]phenoxy]propyl]phenoxy]met
                  637358-84-0P, N-[2-(2-Ethoxyphenyl)ethyl]-3-(4-
     hydroxyphenyl)propanamide 637358-85-1P, Methyl
     2-[[4-[3-[[2-(2-ethoxyphenyl)ethyl]amino]-3-
     oxopropyl]phenoxy]methyl]benzoate
                                       637358-87-3P,
     N-Ethyl-3-(4-hydroxyphenyl)-N-(2-(pyridin-2-yl)ethyl)propanamide
     637358-88-4P, Methyl 2-[[4-[3-[ethyl(2-(pyridin-2-yl)ethyl)amino]-
     3-oxopropyl]phenoxy]methyl]benzoate
                                         637358-90-8P,
     1-(2-Bromoethyl)-3-tert-butoxybenzene
                                            637358-91-9P, Methyl
     2-[[2-(3-tert-butoxyphenyl)ethyl]thio]benzoate
                                                      637358-92-0P,
     Methyl 2-[[2-(3-hydroxyphenyl)ethyl]thio]benzoate
                                                        637358-93-1P,
     N-Benzyl-2-bromo-N-hexylacetamide 637358-94-2P, Methyl
     2-[[2-[3-[2-[benzyl(hexyl)amino]-2-oxoethoxy]phenyl]ethyl]thio]ben
            637358-96-4P, N-[2-(2-Methoxyphenyl)ethyl]heptan-1-amine
     637358-97-5P, Methyl 2-[[4-[2-[heptyl[2-(2-
     methoxyphenyl)ethyl]amino]-2-oxoethyl]phenoxy]methyl]benzoate
     637358-99-7P, N-[2-(4-Chlorophenyl)ethyl]-N-heptylamine
     637359-00-3P, Methyl 2-[[4-[2-[[2-(4-chlorophenyl)ethyl] (heptyl)am
     ino]-2-oxoethyl]phenoxy]methyl]benzoate 637359-02-5P,
     N-(2-Phenylethyl)heptan-1-amine
                                       637359-03-6P, Methyl
     2-[[4-[2-[heptyl(2-phenylethyl)amino]-2-
     oxoethyl]phenoxy]methyl]benzoate
                                       637359-05-8P.
     N-Ethyl-N-(2-fluorobenzyl)-2-(4-hydroxyphenoxy)acetamide
     637359-06-9P, Methyl 2-[[4-[2-[ethyl(2-fluorobenzyl)amino]-2-
     oxoethoxy]phenoxy]methyl]benzoate 637359-09-2P, Methyl
     [2-[4-[2-[(ethyl)(2-fluorobenzyl)amino]-2-
     oxoethyl]benzyl]oxy]benzoate
                                   637359-11-6P, Methyl
     [2-[4-[2-[heptyl(2-phenylethyl)amino]-2-
     oxoethyl]benzyl]oxy]benzoate
                                   637359-13-8P, Methyl
     [2-[4-[2-[[2-(4-chlorophenyl)ethyl](heptyl)amino]-2-
     oxoethyl]benzyl]oxy]benzoate 637359-17-2P, Methyl
     2-[2-[4-[2-[isobuty1[4-(trifluoromethyl)benzy1]amino]-2-
     oxoethoxy]phenyl]ethoxy]benzoate
        (preparation of benzoic acid derivs. as modulators of PPAR-\alpha
        and PPAR-γ)
                               THERE ARE 6 CITED REFERENCES AVAILABLE
REFERENCE COUNT:
                               FOR THIS RECORD. ALL CITATIONS AVAILABLE
                               IN THE RE FORMAT
L32 ANSWER 10 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         2004:2678 HCAPLUS
DOCUMENT NUMBER:
                         140:59405
                         Preparation of ortho-substituted benzoic acid
TITLE:
                         derivatives for the treatment of insulin
                         resistance
INVENTOR(S):
                         Li, Lanna
                         Astrazeneca AB, Swed.
PATENT ASSIGNEE(S):
                         PCT Int. Appl., 56 pp.
SOURCE:
                         CODEN: PIXXD2
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WO 2004000294	A1 20031231		2003 0617
CH, CN, C GB, GD, G KP, KR, K MN, MW, M SC, SD, S US, UZ, V RW: GH, GM, K	CO, CR, CU, CZ, DE, SE, GH, GM, HR, HU, KZ, LC, LK, LR, LS, MX, MZ, NI, NO, NZ, SE, SG, SK, SL, TJ, CC, VN, YU, ZA, ZM, KE, LS, MW, MZ, SD,	SL, SZ, TZ, UG, ZM, ZW,	FI, KG, MK, RU, UG,
DE, DK, E PT, RO, S	EE, ES, FI, FR, GB, BE, SI, SK, TR, BF, ML, MR, NE, SN, TD,		NL,
CA 2490684	AA 20031231	. CA 2003-2490684	2003 0617
AU 2003240100	A1 20040106	< S AU 2003-240100	2003 0617
EP 1517679	A1 20050330	< EP 2003-732714	2003 0617
	E, SI, LT, LV, FI,	GB, GR, IT, LI, LU, NL, RO, MK, CY, AL, TR, BG,	
BR 2003011839	A 20050405		2003 0617
· CN 1674883	A 20050928	< 3 CN 2003-819853	2003 0617
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NO 2004005223	A 20050317	< NO 2004-5223	0617 2004 1129
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US 2005222261	A1 20051006	< US 2004-519376	1130

USHA SHRESTHA EIC 1600 REM 1A64

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			1220
	<		
PRIORITY APPLN. INFO.:	SE 2002-1936	Α	
			2002
			0620
	<		
	SE 2002-1935	Α	
			2002
			0620
	<		
	WO 2003-GB2591	W	
			2003
			0617

OTHER SOURCE(S):

MARPAT 140:59405

GI

$$\begin{array}{c|c}
R^2 & 0 \\
 & R^3
\end{array}$$

$$\begin{array}{c|c}
& CO_2H \\
\end{array}$$

Me N
$$CO_2H$$

AB Title compds. I [n = 0-2; R1 = halo, alkyl, alkoxy, etc.; R2 = alkyl; R3 = H, OCH3; W = O, S] are prepared For instance, tert-Bu [4-(2-hydroxyethyl)phenoxy]acetate (preparation given) is sulfonylated (CH2Cl2, Et3N, MsCl), reacted with Me salicylate (CH3CN, K2CO3, reflux, 16 h), deprotected (CH2Cl2, TFA), coupled to N-(2-Fluorobenzyl)ethanamine and saponified to give II. Example compds. have an EC50 < 50 μ mol/L for PPAR- α . I are useful in treating clin. conditions associated with insulin resistance.

IT 637763-49-6P, 2-[2-[4-[2-[Ethyl(2-fluorobenzyl)amino]-2 oxoethoxy]phenyl]ethoxy]benzoic acid 637763-60-1P,
 2-[2-[4-[2-[(2,4-Difluorobenzyl)(heptyl)amino]-2-oxoethoxy]-3 methoxyphenyl]ethoxy]benzoic acid 637763-69-0P,
 2-[[2-[4-[2-[(4-Chlorobenzyl)(ethyl)amino]-2-

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oxoethoxy]phenyl]ethyl]thio]benzoic acid 637763-75-8P,
    2-[[2-[4-[2-[Ethyl[4-(trifluoromethyl)benzyl]amino]-2-
    oxoethoxy]phenyl]ethyl]thio]benzoic acid 637763-77-0P,
    2-[2-[4-[2-[Buty1[2-fluoro-4-(trifluoromethy1)benzy1]amino]-2-
    oxoethoxy]phenyl]ethoxy]benzoic acid 637763-79-2P,
    2-[2-[4-[2-[(2,4-Difluorobenzyl)(propyl)amino]-2-
    oxoethoxy]phenyl]ethoxy]benzoic acid 637763-81-6P,
    2-[2-[4-[2-[Benzy] (ethyl) amino] -2-oxoethoxy] phenyl] ethoxy] benzoic
    acid 637763-83-8P, 2-[[2-[4-[2-[Benzyl(ethyl)amino]-2-
    oxoethoxy]phenyl]ethyl]thio]benzoic acid 637763-85-0P,
    2-[2-[4-[2-[(4-tert-Butylbenzyl)(ethyl)amino]-2-
    oxoethoxy]phenyl]ethoxy]benzoic acid 637763-87-2P,
    2-[2-[4-[2-[Ethyl (4-fluorobenzyl) amino]-2-
    oxoethoxy]phenyl]ethoxy]benzoic acid 637763-89-4P,
     2-[[2-[4-[2-[Ethyl(2-fluorobenzyl)amino]-2-
    oxoethoxy]phenyl]ethyl]thio]benzoic acid 637763-92-9P,
     2-[[2-[4-[2-[(2-Chlorobenzyl)(ethyl)amino]-2-
    oxoethoxy]phenyl]ethyl]thio]benzoic acid 637763-93-0P,
     2-[2-[4-[2-[(4-Chlorobenzyl)(ethyl)amino]-2-
    oxoethoxy]phenyl]ethoxy]benzoic acid 637763-94-1P,
     2-[2-[4-[2-[Ethyl(4-trifluoromethylbenzyl)amino]-2-
     oxoethoxy]phenyl]ethoxy]benzoic acid
        (preparation of ortho-substituted benzoic acid derivs. for treatment
        of insulin resistance)
RN
     637763-49-6 HCAPLUS
     Benzoic acid, 2-[2-[4-[2-[ethyl](2-fluorophenyl)methyl]amino]-2-
CN
     oxoethoxy]phenyl]ethoxy]- (9CI) (CA INDEX NAME)
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RN 637763-60-1 HCAPLUS
CN Benzoic acid, 2-[2-[4-[2-[[(2,4-difluorophenyl)methyl]heptylamino]2-oxoethoxy]-3-methoxyphenyl]ethoxy]- (9CI) (CA INDEX NAME)

RN 637763-69-0 HCAPLUS
CN Benzoic acid, 2-[[2-[4-[2-[[(4-chlorophenyl)methyl]ethylamino]-2-oxoethoxy]phenyl]ethyl]thio]- (9CI) (CA INDEX NAME)

RN 637763-75-8 HCAPLUS

CN Benzoic acid, 2-[[2-[4-[2-[ethyl[[4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]phenyl]ethyl]thio]- (9CI) (CA INDEX NAME)

RN 637763-77-0 HCAPLUS

CN Benzoic acid, 2-[2-[4-[2-[butyl[[2-fluoro-4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]phenyl]ethoxy]-(9CI) (CA INDEX NAME)

RN 637763-79-2 HCAPLUS

CN Benzoic acid, 2-[2-[4-[2-[[(2,4-difluorophenyl)methyl]propylamino]-2-oxoethoxy]phenyl]ethoxy]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & O & Pr-n \\ & & & \\ \hline & O-CH_2-CH_2 \\ \hline & & \\ \hline & CO_2H \\ \end{array}$$

RN 637763-81-6 HCAPLUS

CN Benzoic acid, 2-[2-[4-[2-[ethyl(phenylmethyl)amino]-2-oxoethoxy]phenyl]ethoxy]- (9CI) (CA INDEX NAME)

RN 637763-83-8 HCAPLUS

CN Benzoic acid, 2-[[2-[4-[2-[ethyl(phenylmethyl)amino]-2-oxoethoxy]phenyl]ethyl]thio]- (9CI) (CA INDEX NAME)

RN 637763-85-0 HCAPLUS

CN Benzoic acid, 2-[2-[4-[2-[[[4-(1,1-dimethylethyl)phenyl]methyl]eth ylamino]-2-oxoethoxy]phenyl]ethoxy]- (9CI) (CA INDEX NAME)

RN 637763-87-2 HCAPLUS

CN Benzoic acid, 2-[2-[4-[2-[ethyl](4-fluorophenyl)methyl]amino]-2-oxoethoxy]phenyl]ethoxy]- (9CI) (CA INDEX NAME)

$$CO_2H$$
 O
 CH_2
 CH_2

RN 637763-89-4 HCAPLUS

CN Benzoic acid, 2-[[2-[4-[2-[ethyl[(2-fluorophenyl)methyl]amino]-2-oxoethoxy]phenyl]ethyl]thio]- (9CI) (CA INDEX NAME)

RN 637763-92-9 HCAPLUS

CN Benzoic acid, 2-[[2-[4-[2-[((2-chlorophenyl)methyl]ethylamino]-2-oxoethoxy]phenyl]ethyl]thio]- (9CI) (CA INDEX NAME)

RN 637763-93-0 HCAPLUS

CN Benzoic acid, 2-[2-[4-[2-[[(4-chlorophenyl)methyl]ethylamino]-2-oxoethoxy]phenyl]ethoxy]- (9CI) (CA INDEX NAME)

RN 637763-94-1 HCAPLUS

CN Benzoic acid, 2-[2-[4-[2-[ethyl[[4-(trifluoromethyl)phenyl]methyl] amino]-2-oxoethoxy]phenyl]ethoxy]- (9CI) (CA INDEX NAME)

IT 637763-76-9, Methyl 2-[2-[4-[2-[butyl[2-fluoro-4-(trifluoromethyl)benzyl]amino]-2-oxoethoxy]phenyl]ethoxy]benzoate (preparation of ortho-substituted benzoic acid derivs. for treatment of insulin resistance)

RN 637763-76-9 HCAPLUS

CN Benzoic acid, 2-[2-[4-[2-[butyl[[2-fluoro-4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]phenyl]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & Bu-n \\ \hline C-OMe & & & & \\ O-CH_2-CH_2 & & & \\ \hline \end{array}$$

IT 637763-47-4P, Methyl 2-[2-[4-[2-[ethyl(2fluorobenzyl)amino]-2-oxoethoxy]phenyl]ethoxy]benzoate 637763-54-3P, N-(2,4-Difluorobenzyl)-N-heptyl-2-[4-(2hydroxyethyl) -2-methoxyphenoxy]acetamide 637763-56-5P, 2-[4-[2-[(2,4-Difluorobenzyl)(heptyl)amino]-2-oxoethoxy]-3methoxyphenyl]ethyl methanesulfonate 637763-58-7P, Methyl 2-[2-[4-[2-[(2,4-difluorobenzyl)(heptyl)amino]-2-oxoethoxy]-3-methoxyphenyl]ethoxy]benzoate 637763-67-8P, Methyl 2-[[2-[4-[2-[(4-chlorobenzyl)(ethyl)amino]-2oxoethoxy]phenyl]ethyl]thio]benzoate 637763-73-6P, Methyl 2-[[2-[4-[2-[ethyl[4-(trifluoromethyl)benzyl]amino]-2oxoethoxy]phenyl]ethyl]thio]benzoate 637763-78-1P, Methyl 2-[2-[4-[2-[(2,4-difluorobenzyl)(propyl)amino]-2oxoethoxy]phenyl]ethoxy]benzoate 637763-80-5P, Methyl 2-[2-[4-[2-[benzyl(ethyl)amino]-2-oxoethoxy]phenyl]ethoxy]benzoate 637763-82-7P, Methyl 2-[[2-[4-[2-[benzyl(ethyl)amino]-2oxoethoxy]phenyl]ethyl]thio]benzoate 637763-84-9P, Methyl 2-[2-[4-[2-[(4-tert-butylbenzyl)(ethyl)amino]-2oxoethoxy]phenyl]ethoxy]benzoate 637763-86-1P, Methyl 2-[2-[4-[2-[ethyl(4-fluorobenzyl)amino]-2oxoethoxy]phenyl]ethoxy]benzoate 637763-88-3P, Methyl 2-[[2-[4-[2-[ethyl(2-fluorobenzyl)amino]-2oxoethoxy]phenyl]ethyl]thio]benzoate 637763-91-8P, Methyl 2-[[2-[4-[2-[(2-chlorobenzyl)(ethyl)amino]-2oxoethoxy]phenyl]ethyl]thio]benzoate (preparation of ortho-substituted benzoic acid derivs. for treatment of insulin resistance) RN 637763-47-4 HCAPLUS Benzoic acid, 2-[2-[4-[2-[ethy1](2-fluoropheny1)methy1]amino]-2-CN oxoethoxy]phenyl]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

RN 637763-54-3 HCAPLUS

CN Acetamide, N-[(2,4-difluorophenyl)methyl]-N-heptyl-2-[4-(2-hydroxyethyl)-2-methoxyphenoxy]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \operatorname{HO-CH_2-CH_2} & & & (\operatorname{CH_2})_{\,6} - \operatorname{Me} \\ \hline & & & & (\operatorname{CH_2})_{\,6} - \operatorname{Me} \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & &$$

RN 637763-56-5 HCAPLUS

CN Acetamide, N-[(2,4-difluorophenyl)methyl]-N-heptyl-2-[2-methoxy-4-[2-[(methylsulfonyl)oxy]ethyl]phenoxy]- (9CI) (CA INDEX NAME)

RN 637763-58-7 HCAPLUS

CN Benzoic acid, 2-[2-[4-[2-[[(2,4-difluorophenyl)methyl]heptylamino]-2-oxoethoxy]-3-methoxyphenyl]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & OMe & (CH_2)_6-Me \\ \hline C-OMe & O-CH_2-C-N-CH_2 \\ \hline O-CH_2-CH_2 & O \end{array}$$

RN 637763-67-8 HCAPLUS

CN Benzoic acid, 2-[[2-[4-[2-[[(4-chlorophenyl)methyl]ethylamino]-2-oxoethoxy]phenyl]ethyl]thio]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{C} & \text{C} \\ \hline & \text{C} & \text{OMe} \\ \hline & \text{S} & \text{CH}_2 & \text{CH}_2 \\ \hline \end{array}$$

RN 637763-73-6 HCAPLUS

CN Benzoic acid, 2-[[2-[4-[2-[ethyl[[4-(trifluoromethyl)phenyl]methyl]amino]-2-oxoethoxy]phenyl]ethyl]thio]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \circ & \circ & \mathsf{Et} \\ & \mathsf{C-OMe} & & & & \mathsf{CH}_2-\mathsf{CH}_2 \\ \hline & \mathsf{S-CH}_2-\mathsf{CH}_2 & & & & \mathsf{CH}_2 \\ \hline \end{array}$$

RN 637763-78-1 HCAPLUS

CN Benzoic acid, 2-[2-[4-[2-[[(2,4-difluorophenyl)methyl]propylamino]-2-oxoethoxy]phenyl]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

RN 637763-80-5 HCAPLUS

CN Benzoic acid, 2-[2-[4-[2-[ethyl(phenylmethyl)amino]-2-oxoethoxy]phenyl]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O \\ C-OMe \\ \hline \\ O-CH_2-CH_2 \\ \hline \\ O-CH_2-C-N-Et \\ \end{array}$$

RN 637763-82-7 HCAPLUS

CN Benzoic acid, 2-[[2-[4-[2-[ethyl(phenylmethyl)amino]-2-oxoethoxy]phenyl]ethyl]thio]-, methyl ester (9CI) (CA INDEX NAME)

$$S-CH_2-CH_2$$
 $O-CH_2-CH_2-CH_2$
 $O-CH_2-CH_2-CH_2$

RN 637763-84-9 HCAPLUS

CN Benzoic acid, 2-[2-[4-[2-[[[4-(1,1-dimethylethyl)phenyl]methyl]eth ylamino]-2-oxoethoxy]phenyl]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & \text{COME} \\ \hline \\ C-\text{OMe} \\ \hline \\ O-\text{CH}_2-\text{CH}_2 \\ \hline \end{array}$$

RN 637763-86-1 HCAPLUS

CN Benzoic acid, 2-[2-[4-[2-[ethyl[(4-fluorophenyl)methyl]amino]-2-oxoethoxy]phenyl]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

RN 637763-88-3 HCAPLUS

CN Benzoic acid, 2-[[2-[4-[2-[ethyl[(2-fluorophenyl)methyl]amino]-2-oxoethoxy]phenyl]ethyl]thio]-, methyl ester (9CI) (CA INDEX NAME)

RN 637763-91-8 HCAPLUS

CN Benzoic acid, 2-[[2-[4-[2-[[(2-chlorophenyl)methyl]ethylamino]-2-oxoethoxy]phenyl]ethyl]thio]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & & & & C1 \\ \hline \\ C-\text{OMe} & & & & \\ S-\text{CH}_2-\text{CH}_2 & & & \\ \end{array}$$

IC ICM A61K031-19

ICS A61P003-06; A61P003-10; C07C323-62; C07C235-20

CC 25-17 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

Section cross-reference(s): 1, 63

IT Anticholesteremic agents

Antidiabetic agents

Antihypertensives

Antiobesity agents

(combination pharmaceutical; preparation of ortho-substituted benzoic acid derivs. for treatment of insulin resistance)

IT Peroxisome proliferator-activated receptors

8

```
(a; preparation of ortho-substituted benzoic acid derivs. for
       treatment of insulin resistance)
    637763-49-6P, 2-[2-[4-[2-[Ethyl(2-fluorobenzyl)amino]-2-
IT
    oxoethoxy]phenyl]ethoxy]benzoic acid 637763-60-1P,
    2-[2-[4-[2-[(2,4-Difluorobenzyl)(heptyl)amino]-2-oxoethoxy]-3-
    methoxyphenyl]ethoxy]benzoic acid 637763-69-0P,
    2-[[2-[4-[2-[(4-Chlorobenzyl) (ethyl)amino]-2-
    oxoethoxy]phenyl]ethyl]thio]benzoic acid 637763-75-8P,
    2-[[2-[4-[2-[Ethyl[4-(trifluoromethyl)benzyl]amino]-2-
    oxoethoxy]phenyl]ethyl]thio]benzoic acid 637763-77-0P,
    2-[2-[4-[2-[Butyl[2-fluoro-4-(trifluoromethyl)benzyl]amino]-2-
    oxoethoxy]phenyl]ethoxy]benzoic acid 637763-79-2P,
    2-[2-[4-[2-[(2,4-Difluorobenzyl)(propyl)amino]-2-
    oxoethoxy]phenyl]ethoxy]benzoic acid 637763-81-6P,
    2-[2-[4-[2-[Benzyl(ethyl)amino]-2-oxoethoxy]phenyl]ethoxy]benzoic
    acid 637763-83-8P, 2-[[2-[4-[2-[Benzyl(ethyl)amino]-2-
    oxoethoxy]phenyl]ethyl]thio]benzoic acid 637763-85-0P,
    2-[2-[4-[2-[(4-tert-Butylbenzyl)(ethyl)amino]-2-
    oxoethoxy]phenyl]ethoxy]benzoic acid 637763-87-2P,
    2-[2-[4-[2-[Ethyl(4-fluorobenzyl)amino]-2-
    oxoethoxy]phenyl]ethoxy]benzoic acid 637763-89-4P,
    2-[[2-[4-[2-[Ethyl(2-fluorobenzyl)amino]-2-
    oxoethoxy]phenyl]ethyl]thio]benzoic acid 637763-92-9P,
    2-[[2-[4-[2-[(2-Chlorobenzyl)(ethyl)amino]-2-
    oxoethoxy]phenyl]ethyl]thio]benzoic acid 637763-93-0P,
    2-[2-[4-[2-[(4-Chlorobenzyl)(ethyl)amino]-2-
    oxoethoxy]phenyl]ethoxy]benzoic acid 637763-94-1P,
    2-[2-[4-[2-[Ethyl(4-trifluoromethylbenzyl)amino]-2-
    oxoethoxy]phenyl]ethoxy]benzoic acid
        (preparation of ortho-substituted benzoic acid derivs. for treatment
       of insulin resistance)
IT
    104-86-9, 1-(4-Chlorophenyl) methanamine
                                               119-36-8, Methyl
                 140-75-0, 1-(4-Fluorophenyl)methanamine
    salicylate
                                3300-51-4, 1-[4-
    4-(2-Hydroxyethyl)phenol
     (Trifluoromethyl)phenyl]methanamine
                                          4892-02-8, Methyl
    2-mercaptobenzoate
                        5292-43-3, tert-Butyl bromoacetate
    14321-27-8, N-Benzyl-N-ethylamine
                                        22118-09-8, Bromoacetyl
               62924-61-2, N-(2-Chlorobenzyl)-N-ethylamine
    chloride
    64567-25-5, N-(2-Fluorobenzyl)ethanamine
                                                152821-50-6,
    N-(4-tert-Butylbenzyl)-N-ethylamine
                                           637014-99-4,
    N-(2,4-Difluorobenzyl)-N-heptylamine
                                           637015-27-1,
    N-(2,4-Difluorobenzyl)-N-propylamine
                                           637359-16-1, Methyl
    2-[2-[4-(2-chloro-2-oxoethoxy)phenyl]ethoxy]benzoate
    637763-76-9, Methyl 2-[2-[4-[2-[butyl[2-fluoro-4-
     (trifluoromethyl)benzyl]amino]-2-oxoethoxy]phenyl]ethoxy]benzoate
        (preparation of ortho-substituted benzoic acid derivs. for treatment
       of insulin resistance)
IT
    57058-33-0P, N-(4-Chlorobenzyl)acetamide 69957-83-1P,
    N-(4-Chlorobenzyl)-N-ethylamine 86010-68-6P,
    N-(4-Fluorobenzyl)acetamide 90390-12-8P, N-[4-
     (Trifluoromethyl)benzyl]ethanamine
                                          119293-44-6P, tert-Butyl
     [4-(2-hydroxyethyl) phenoxy] acetate
                                          162401-03-8P,
    N-(4-Fluorobenzyl)ethanamine
                                   637763-42-9P, tert-Butyl
                                                        637763-43-0P,
     [4-[2-[(methylsulfonyl)oxy]ethyl]phenoxy]acetate
    Methyl 2-[2-[4-(2-tert-butoxy-2-oxoethoxy)phenyl]ethoxy]benzoate
    637763-45-2P, [4-[2-[2-(Methoxycarbonyl)phenoxy]ethyl]phenoxy]acet
    ic acid 637763-47-4P, Methyl 2-[2-[4-[2-[ethyl(2-
    fluorobenzyl)amino]-2-oxoethoxy]phenyl]ethoxy]benzoate
    637763-51-0P, 2-Bromo-N-(2,4-difluorobenzyl)-N-heptylacetamide
    637763-54-3P, N-(2,4-Difluorobenzyl)-N-heptyl-2-[4-(2-
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hydroxyethyl) -2-methoxyphenoxy] acetamide 637763-56-5P,
     2-[4-[2-[(2,4-Difluorobenzyl)(heptyl)amino]-2-oxoethoxy]-3-
     methoxyphenyl]ethyl methanesulfonate 637763-58-7P,
     Methyl 2-[2-[4-[2-[(2,4-difluorobenzyl)(heptyl)amino]-2-oxoethoxy]-
     3-methoxyphenyl]ethoxy]benzoate
                                      637763-63-4P, Methyl
     2-[[2-[4-(2-tert-butoxy-2-oxoethoxy)phenyl]ethyl]thio]benzoate
     637763-65-6P, [4-[2-[[2-(Methoxycarbonyl)phenyl]thio]ethyl]phenoxy
     ]acetic acid 637763-67-8P, Methyl 2-[[2-[4-[2-[(4-
     chlorobenzyl) (ethyl) amino] -2-oxoethoxy] phenyl] ethyl] thio] benzoate
     637763-71-4P, N-[4-(Trifluoromethyl)benzyl]acetamide
     637763-73-6P, Methyl 2-[[2-[4-[2-[ethyl[4-
     (trifluoromethy1)benzy1]amino]-2-oxoethoxy]pheny1]ethy1]thio]benzo
     ate 637763-78-1P, Methyl 2-[2-[4-[2-[(2,4-
     difluorobenzyl) (propyl) amino] -2-oxoethoxy] phenyl] ethoxy] benzoate
     637763-80-5P, Methyl 2-[2-[4-[2-[benzyl(ethyl)amino]-2-
     oxoethoxy]phenyl]ethoxy]benzoate 637763-82-7P, Methyl
     2-[[2-[4-[2-[benzyl(ethyl)amino]-2-oxoethoxy]phenyl]ethyl]thio]ben
     zoate 637763-84-9P, Methyl 2-[2-[4-[2-[(4-tert-
     butylbenzyl) (ethyl) amino] -2-oxoethoxy] phenyl] ethoxy] benzoate
     637763-86-1P, Methyl 2-[2-[4-[2-[ethyl(4-
     fluorobenzyl)amino] -2-oxoethoxy]phenyl]ethoxy]benzoate
     637763-88-3P, Methyl 2-[[2-[4-[2-[ethyl(2-
     fluorobenzyl)amino]-2-oxoethoxy]phenyl]ethyl]thio]benzoate
     637763-91-8P, Methyl 2-[[2-[4-[2-[(2-
     chlorobenzyl) (ethyl) amino] -2-oxoethoxy] phenyl] ethyl] thio] benzoate
        (preparation of ortho-substituted benzoic acid derivs. for treatment
        of insulin resistance)
REFERENCE COUNT:
                               THERE ARE 3 CITED REFERENCES AVAILABLE
                               FOR THIS RECORD. ALL CITATIONS AVAILABLE
                               IN THE RE FORMAT
L32 ANSWER 11 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
                      2003:491169 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                        139:69054
                        Preparation of substituted phenylpropionic
TITLE:
                         acid derivatives as agonists to human
                         peroxisome proliferator-activated
                         receptor alpha (PPAR)
INVENTOR(S):
                         Alstermark Lindstedt, Eva-Lotte; Olsson, Anna
                         Christina; Li, Lanna
PATENT ASSIGNEE(S):
                         Astrazeneca AB, Swed.; Astrazeneca UK Limited
                         PCT Int. Appl., 43 pp.
SOURCE:
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                          APPLICATION NO.
                                                                   DATE
     PATENT NO.
                       KIND
                                DATE
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                                20030626 WO 2002-GB5744
     WO 2003051822
                        A1
                                                                    2002
                                                                    1218
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
             CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,
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GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD,

								TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	
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								CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	
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US	2003	2020	£ £		AI		2003	1446		JJ 2		2000	J		20	04
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PRIORITY APPLN.	INFO.:	SE	< 2001-4334	A	2001 1219
		JР	< 2003-552709	А3	2002 1218
		WO	< 2002-GB5738	W	2002 1218
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		GB	< 2002-29931	A	2002 1221
	·	GB	< 2003-14079	A	2003 0618
		WO	2003-GB305602	A	2003 1219
		WO	2004-EP6597	A	2004 0617
		US	2005-499261	A2	2005 0304

OTHER SOURCE(S):

MARPAT 139:69054

AB The present invention provides the S enantiomer of a compound of formula (I) (wherein R1 represents 2,4-difluorophenyl or cyclohexyl) as well as pharmaceutically acceptable salts, solvates, crystalline forms and prodrugs thereof, processes for preparing such compds., their the utility in treating clin. conditions including lipid disorders (dyslipidemias) whether or not associated with insulin resistance, methods for their therapeutic use, and

pharmaceutical compns. containing them. Thus, to a solution of [4-((2S)-2,3-diethoxy-3-oxopropyl)phenoxy]acetic acid (0.108 g) 3.6 mL CH2Cl2 were added N-(cyclohexylmethyl)-N-heptylamine hydrochloride (0.090 g) and DMAP (0.098 g) followed by 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride (0.070 q) and the reaction mixture was stirred at room temperature overnight to give, after workup and silica gel chromatog., Et (2S) -3-[4-[2-[(cyclohexylmethyl)(heptyl)amino]-2-oxoethoxy]phenyl]-2-ethoxypropanoate which (0.031 g) was saponified with LiOH in aqueous THF at room temperature overnight and acidified with aqueous 2 M HCl to give (2S) -3-[4-[2-[(cyclohexylmethyl)(heptyl)amino]-2-oxoethoxy]phenyl]-2-ethoxypropanoic acid. The compds. I had EC50 of less than 0.5 $\mu mol/L$ for PPAR α and preferred compds. have EC50 of less than 0.05 μ mol/L for PPAR α . They were more potent with respect to PPAR α than with respect to PPAR γ . TΤ **549501-66-8P**, (2S)-3-[4-[2-[(Cyclohexylmethyl) (heptyl) amin o]-2-oxoethoxy]phenyl]-2-ethoxypropanoic acid 549501-72-6P , (2S) -3-[4-[2-[(2,4-Difluorobenzyl)(heptyl)amino]-2oxoethoxy]phenyl]-2-ethoxypropanoic acid (preparation of substituted phenylpropionic acid derivs. as agonists to human peroxisome proliferator-activated receptor alpha (PPAR) for treating lipid disorders) RN549501-66-8 HCAPLUS Benzenepropanoic acid, 4-[2-[(cyclohexylmethyl)heptylamino]-2-CN oxoethoxy] $-\alpha$ -ethoxy-, (α S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 549501-72-6 HCAPLUS
CN Benzenepropanoic acid, 4-[2-[[(2,4-difluorophenyl)methyl]heptylami
no]-2-oxoethoxy]-α-ethoxy-, (αS)- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.

IC ICM C07C235-20 ICS A61K031-16; A61P003-00 CC 25-18 (Benzene, Its Derivatives,

CC 25-18 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

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Section cross-reference(s): 1
    phenylpropionic acid prepn agonist human peroxisome
ST
    proliferator activated receptor; lipid disorder dyslipidemia
     treatment phenylpropionic acid prepn
IT
    Human
        (preparation of substituted phenylpropionic acid derivs. as agonists
        to human peroxisome proliferator-activated receptor
        alpha (PPAR) for treating lipid disorders)
     Dyslipidemia
ΙT
        (preparation of substituted phenylpropionic acid derivs. as agonists
        to human peroxisome proliferator-activated receptor
        alpha (PPAR) for treating lipid disorders)
     Peroxisome proliferator-activated receptors
IT
        (\alpha; preparation of substituted phenylpropionic acid derivs. as
        agonists to human peroxisome proliferator-activated
        receptor alpha (PPAR) for treating lipid disorders)
                                287714-41-4, Rosuvastatin
IT
     134523-00-5, Atorvastatin
        (drug containing; preparation of substituted phenylpropionic acid
        derivs. as agonists to human peroxisome
       proliferator-activated receptor alpha (PPAR) for treating lipid
       disorders)
                  439087-21-5
                                439087-31-7
                                             439087-34-0
IT
     439087-18-0
     439087-36-2 439087-37-3
                                439087-38-4 439087-48-6
     439087-61-3 439087-63-5 439087-88-4 439087-89-5
     439087-96-4 439088-00-3 439088-01-4
                                             439088-02-5
     439088-03-6 501692-15-5 501692-16-6 501692-17-7
     501692-21-3 501692-27-9 501692-28-0 501692-40-6
     501692-41-7 501692-43-9 501692-44-0 501692-46-2
     501692-50-8 549501-76-0 549501-77-1
                                               549501-78-2
     549501-79-3 549501-80-6 549501-81-7
                                               549501-82-8
     549501-83-9 549501-84-0
        (ideal bile acid transport system (IBAT) inhibitor, drug
        containing; preparation of substituted phenylpropionic acid derivs. as
        agonists to human peroxisome proliferator-activated
        receptor alpha (PPAR) for treating lipid disorders)
     549501-67-9P, Ethyl (2S)-3-[4-[2-(benzyloxy)-2-oxoethoxy]phenyl]-2-
TΤ
                       549501-68-0P, [4-[(2S)-2,3-Diethoxy-3-
     ethoxypropanoate
     oxopropyl]phenoxy]acetic acid
                                   549501-69-1P, N-
     (Cyclohexylmethyl) heptanamide 549501-70-4P, N-(Cyclohexylmethyl) -
                                 549501-71-5P, Ethyl
     N-heptylamine hydrochloride
     (2S) -3-[4-[2-[(cyclohexylmethyl)(heptyl)amino]-2-oxoethoxy]phenyl]-
     2-ethoxypropanoate
                        549501-73-7P, N-(2,4-
     Difluorobenzyl) heptanamide
                                 549501-74-8P
                                                549501-75-9P, Ethyl
     (2S) -3-[4-[2-[(2,4-difluorobenzyl)(heptyl)amino]-2-
     oxoethoxy]phenyl]-2-ethoxypropanoate
        (intermediate; preparation of substituted phenylpropionic acid
        derivs. as agonists to human peroxisome
        proliferator-activated receptor alpha (PPAR) for treating lipid
        disorders)
     549501-66-8P, (2S)-3-[4-[2-[(Cyclohexylmethyl)(heptyl)amin
IT
     o]-2-oxoethoxy]phenyl]-2-ethoxypropanoic acid 549501-72-6P
      (2S) -3-[4-[2-[(2,4-Difluorobenzyl)(heptyl)amino]-2-
     oxoethoxy]phenyl]-2-ethoxypropanoic acid
        (preparation of substituted phenylpropionic acid derivs. as agonists
        to human peroxisome proliferator-activated receptor
        alpha (PPAR) for treating lipid disorders)
     111-14-8, n-Heptanoic acid 3218-02-8, Aminomethylcyclohexane
ΤТ
     5437-45-6, Benzyl bromoacetate
                                    72235-52-0, 2,4-
     Difluorobenzylamine
                           222555-06-8, Ethyl (2S)-2-ethoxy-3-(4-
     hydroxyphenyl) propanoate
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(reactant; preparation of substituted phenylpropionic acid derivs. as agonists to human peroxisome proliferatoractivated receptor alpha (PPAR) for treating lipid disorders)

REFERENCE COUNT:

سنان د

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 12 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

8

ACCESSION NUMBER:

2003:491168 HCAPLUS

DOCUMENT NUMBER:

139:69049

TITLE:

Preparation of substituted phenylpropionic

acid derivatives as agonists to human

peroxisome proliferator-activated

receptor alpha (PPAR)

INVENTOR(S):

Alstermark Lindstedt, Eva-Lotte; Olsson, Anna

Christina; Li, Lanna

PATENT ASSIGNEE(S):

Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE:

PCT Int. Appl., 40 pp.

DOCUMENT TYPE:

Patent

LANGUAGE:

English

CODEN: PIXXD2

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 2003051821	A1 20030626	WO 2002-GB5738	2002 1218
CH, CN, CO GB, GD, GE KP, KR, KZ MN, MW, MX SE, SG, SK VC, VN, YU RW: GH, GM, KE AZ, BY, KG DE, DK, EE SE, SI, SK	, CR, CU, CZ, DE, , GH, GM, HR, HU, , LC, LK, LR, LS, , MZ, NO, NZ, OM, , SL, TJ, TM, TN, , ZA, ZM, ZW , LS, MW, MZ, SD, , KZ, MD, RU, TJ, , ES, FI, FR, GB,	BA, BB, BG, BR, BY, BZ, DK, DM, DZ, EC, EE, ES, ID, IL, IN, IS, JP, KE, LT, LU, LV, MA, MD, MG, PH, PL, PT, RO, RU, SC, TR, TT, TZ, UA, UG, US, SL, SZ, TZ, UG, ZM, ZW, TM, AT, BE, BG, CH, CY, GR, IE, IT, LU, MC, NL, CG, CI, CM, GA, GN, GQ,	FI, KG, MK, SD, UZ, AM, CZ, PT,
		CA 2002-2470491	2002 1218
AU 2002366315	A1 20030630	< AU 2002-366315	2002 1218
EP 1458673	A1 20040922	EP 2002-804964	2002 1218
		GB, GR, IT, LI, LU, NL, RO, MK, CY, AL, TR, BG,	
BR 2002014988	A 20041214	BR 2002-14988	2002

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CN 1620422	A	20050525	CN	2002-828123		2002
						1218
				<		
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WO 2004-EP6597

2004

0617

US 2005-499261

A2 2005

0304

OTHER SOURCE(S):

MARPAT 139:69049

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The S enantiomer of I, n = 1 or 2, (C6H13 = hexyl) as well as their pharmaceutically acceptable salts, solvates, crystalline forms and prodrugs are synthesized using various solvents and in presence of charcoal-supported palladium catalyst. The utility of these compds. in clin. conditions such as lipid disorders (dyslipidemias) whether or not associated with insulin resistance and therapeutic and other pharmaceutical activities is also investigated. For example, (2S)-3-(4{2-[benzyl(hexyl)amino]-2-oxoethoxy}phenyl)2-ethoxypropionic acid was prepared in 58% yield via reaction of (2S)-2-ethoxy-3-(4-hydroxyphenyl) propanoate and benzyl bromoacetate.

IT 549532-33-4P 549532-35-6P

(preparation of enantiomeric substituted phenylpropionic acid derivs. as agonists to human **peroxisome** proliferator-activated receptor)

RN 549532-33-4 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-[2 [hexyl (phenylmethyl) amino] -2-oxoethoxy] -, (αS) - (9CI) (CA
 INDEX NAME)

Absolute stereochemistry.

RN 549532-35-6 HCAPLUS

CN Benzenepropanoic acid, α -ethoxy-4-[2-[hexy1(2-phenylethy1)amino]-2-oxoethoxy]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IC ICM C07C235-20

ICS A61K031-16; A61P003-00

CC 25-17 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

Section cross-reference(s): 1, 63

ST substituted phenylpropionic acid deriv enantiomer deriv prepn agonist activity; human **peroxisome** proliferator activated receptor substituted phenylpropionic acid deriv; PPAR receptor substituted phenylpropionic acid deriv enantiomer

IT Antiarteriosclerotics

(antiatherosclerotics; preparation of enantiomeric substituted phenylpropionic acid derivs. as agonists to human peroxisome proliferator-activated receptor)

IT Structure-activity relationship

(hydroxymethylglutaryl CoA reductase-inhibiting; preparation of enantiomeric substituted phenylpropionic acid derivs. as agonists to human **peroxisome** proliferator-activated receptor)

IT Bile acids

(ileal bile acid transport, inhibitor; preparation of enantiomeric substituted phenylpropionic acid derivs. as agonists to human peroxisome proliferator-activated receptor)

IT Charcoal

IT

(palladium supported with; preparation of enantiomeric substituted phenylpropionic acid derivs. as agonists to human peroxisome proliferator-activated receptor)

Anticholesteremic agents

Antidiabetic agents

Antihypertensives

Antiobesity agents

Human

Hypolipemic agents

(preparation of enantiomeric substituted phenylpropionic acid derivs. as agonists to human **peroxisome** proliferator-activated receptor)

IT Peroxisome proliferator-activated receptors

(preparation of enantiomeric substituted phenylpropionic acid derivs. as agonists to human **peroxisome** proliferator-activated receptor)

IT Drug delivery systems

(prodrugs; preparation of enantiomeric substituted phenylpropionic acid derivs. as agonists to human **peroxisome** proliferator-activated receptor)

IT 7440-05-3, Palladium, uses

(charcoal-supported; preparation of enantiomeric substituted phenylpropionic acid derivs. as agonists to human peroxisome proliferator-activated receptor)

IT 37250-24-1P, HMG-CoA reductase

(inhibitors; preparation of enantiomeric substituted phenylpropionic acid derivs. as agonists to human **peroxisome** proliferator-activated receptor)

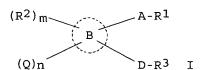
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    5437-45-6, Benzyl bromoacetate 24997-83-9, N-Hexyl-2-
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    phenylethylamine 25468-44-4, N-Hexylbenzylamine 25952-53-8,
    1-Ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride
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        (preparation of enantiomeric substituted phenylpropionic acid
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       proliferator-activated receptor)
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       proliferator-activated receptor)
    67-68-5, DMSO, uses 109-99-9, THF, uses 57951-36-7,
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    Dimethylaminopyridine
        (solvent; preparation of enantiomeric substituted phenylpropionic
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       proliferator-activated receptor)
                              THERE ARE 8 CITED REFERENCES AVAILABLE
REFERENCE COUNT:
                        8
                              FOR THIS RECORD. ALL CITATIONS AVAILABLE
                              IN THE RE FORMAT
L32 ANSWER 13 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
                        2003:154382 HCAPLUS
ACCESSION NUMBER:
                        138:187795
DOCUMENT NUMBER:
TITLE:
                        Preparation of aryl or heterocyclyl-
                        substituted benzoic acid and alkanoic acid
                        derivatives as antagonists of prostaglandin E2
                         (PEG2) receptors
                        Tani, Kousuke; Asada, Masaki; Kobayashi,
INVENTOR(S):
                        Kaoru; Narita, Masami; Ogawa, Mikio
                        Ono Pharmaceutical Co., Ltd., Japan
PATENT ASSIGNEE(S):
                        PCT Int. Appl., 1009 pp.
SOURCE:
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
                        Japanese
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
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OTHER SOURCE(S): MARPAT 138:187795



Carboxylic acid derivs. (I) and nontoxic salts thereof [wherein R1 AΒ = CO2H, CO2R4, CH2OH, COR5SO2R6, CONH2, CH2NR5SO2R6, CH2NR9COR10, CH2NR9CONR5SO2R6, CH2SO2NR9COR10, CH2O2CNR5SO2R6, tetrazole, 1,2,4-oxadiazol-5-one, 1,2,4-oxadiazol-5-thione, 1,2,4-thiadiazol-5-one, etc. (wherein R4 = C1-6 alkyl, hydroxy-C1-4 alkyl, C1-4 alkoxy-C1-4 alkyl, carboxy-C1-4 alkyl, etc.; R5, R9 = H, C1-6 alkyl; R6 = C1-6 alkyl, C3-15 mono-, di-, or tricarbocyclic, 3- to 13-membered mono-, di-, or tricyclic heterocyclyl, etc.; R10 = H, R6); A = a single bond, C1-6 alkylene, C2-6 alkenylene, C2-6 alkynylene, etc.; the ring B = C3-12 mono- or dicyclic carbocyclic ring, 3- to 12-membered monoor dicyclic heterocyclic ring; R2 = C1-6 alkyl, C1-6 alkoxy, C1-6 alkylthio, C2-6 alkenyl, C2-6 alkynyl, halo, CHF2, CF3, NO2, cyano, Ph, oxo; m, n = 0,1,2; Q = (C1-4 alkylene, C2-4 alkenylene, or C2-4 alkynylene)-Cyc2, -C1-4 alkylene-Z-Cyc3, amino-C1-4 alkyl, cyano-C1-4 alkyl, acylamino-C1-4 alkyl, 3- to 7-membered monocyclic carbocyclyl, 3- to 6-membered monocyclic heterocyclyl, etc. (wherein Cyc2, Cyc3 = C3-15 mono-, di-, or tricyclic carbocyclyl or heterocyclyl, etc.; Z = O, S, SO, SO2, NH, NHCO, etc.); D = an linking chain consisting of 1-2 or 3-6 of atoms selected from C, N, O, or S, etc.; R3 = C1-6 alkyl, C3-15 mono-, di-, or tricyclic carbocyclyl, 3- to 15-membered mono-, di-, or tricyclic heterocyclyl, etc.] are prepared These carboxylic acid derivs. include phenylpropanoic acid, phenylpropenoic acid, phenylpropanamide, phenylpropenamide, 3-oxoisoindolin-1-ylacetic acid, benzylbenzoic acid, benzylaminoacetic acid, pyrazolylmethylbenzoic acid, benzoylaminoacetic acid, (pyrazolylmethylphenyl)propenoic acid, pyrazolylmethylpropanoic acid, (pyridinyloxyphenyl)propanoic acid, phenoxyacetic acid, phenylbutanoic acid, (pyrazolylmethyl)propanamide, (piperazinylmethylphenyl) propanamide, (morpholinylmethylphenyl)propanamide, (pyridinyloxyphenyl)propanamide, (pyrazolylmethyl)propenamide (oxoimidazolidinylmethylphenyl) propanamide, (oxopyrrolidinylmethylphenyl)propenamide, (thiophenylmethylphenyl)propenamide, (pyrazolylmethylphenylamino)a cetamide, (thiazolylaminomethylphenyl)propanamide, thiophenylpropenamide, (pyrazolylmethylphenoxy) acetamide, (phenoxymethyl) benzamide, (pyrazolylmethylphenylethyl) -1,2,4oxadiazol-5-one, and (pyrazolylmethylphenylindolyl)acetic acid. Because of binding to PEG2 receptors, in particular, subtype EP3 and/or subtype EP4 and having antagonism, the compds. I are useful in preventing and/or treating diseases such as pain, allodynia, hyperalgesia, pruritus (itching), urticaria, atopic dermatitis, contact dermatitis, Urushi (Japanese lacquer tree) dermatitis, allergic conjunctivitis, symptoms during dialysis, asthma, rhinitis, allergic rhinitis, nasal congestion, sneeze, psoriasis, pollakiuria (increased urinary frequency), urination disorder, ejaculation (semination) disorder, fever (pyrexia), systemic inflammation reaction, learning disorder, Alzheimer's disease, neovascularization, cancer formation, cancer proliferation, cancer metastasis to organs, cancer metastasis to bone, hypercalcemia accompanied by cancer metastasis to bone, retinopathy, rubrum, erythema (rash), leucoma, skin moth-patch, heat burn, burn, steroid burn, kidney failure, nephropathy, acute or chronic nephritis, blood electrolyte disorder, imminent abortion, threatened abortion, excessive menstruation, dysmenorrhea, endometriosis, premenstrual syndrome, uterine gland myopathy,

reproduction disorder, and stress. They are also useful in preventing and/or treating anxiety, depression, psychophysiol. disorder, mental retardation, thrombus, embolism, transient ischemic attack, cerebral infarction, atheroma, organ transplant, heart failure, hypertension, myocardial infarction, arteriosclerosis, circulation disorders or ulcers associated therewith, nerve disorders, vascular dementia, edema, diarrhea, constipation, biliary excretion disorder, ulcerative colitis, Crohn's disease, irritable bowel syndrome, reduction of rebound after using steroid drugs, aids for decreasing or removing steroid drugs, bone diseases, systemic granuloma, immune diseases, pyorrhea alveolaris, gingivitis, periodontal disease, nerve cell death, lung disorder, liver disorder, acute hepatitis, myocardial ischemia, Kawasaki disease, multiple organ failure, chronic headache, angiitis, venous failure, varicose vein (varicosis), anal fistula, diabetes insipidus, neonatal patent ductus arteriosus, and cholelithiasis. Thus, 4-hydroxymethyl-2-[2-(naphthalen-2-yl)ethoxy]cinnamic acid Et ester was mesylated by methanesulfonyl chloride in the presence of Et3N in THF at 0° for 15 min and condensed with pyrazole in the presence of NaH in DMF at 0° to give 2-[2-(naphthalen-2-yl)ethoxy]-4-(1-pyrazolylmethyl)cinnamic acid Et ester. 4-[2-[[2-(Naphthalen-1-yl)propanoyl]amino]-4methylthiomethylphenyl]butanoic acid inhibited the binding of [3H] PGE2 to prostaglandin E2 (PEG2) receptor subtype EP1, Ep2, EP3, and EP4 expressed in CHO cells with Ki of >10, >10, 0.27, and 0.038 µM, resp. A tablet formulation containing (2E) -2-[2-(naphthalen-2-yl)ethoxy]-4-(1-pyrazolylmethyl)cinnamic acid was described.

IT 499145-07-2P 499145-08-3P 499145-09-4P 499145-20-9P 499145-21-0P 499153-29-6P 499153-30-9P 499153-40-1P

(preparation of aryl or heterocyclyl-substituted benzoic acid and alkanoic acid derivs. as antagonists of prostaglandin E2 (PEG2) receptors as therapeutic agents)

RN 499145-07-2 HCAPLUS

CN

Benzenepropanoic acid, 2-[2-oxo-2-(phenylamino)ethoxy]-4-(1H-pyrazol-1-ylmethyl)- (9CI) (CA INDEX NAME)

RN 499145-08-3 HCAPLUS

CN Benzenepropanoic acid, 2-[2-(1-naphthalenylamino)-2-oxoethoxy]-4-(1H-pyrazol-1-ylmethyl)- (9CI) (CA INDEX NAME)

$$CH_2$$
 CH_2 CH_2

499145-09-4 HCAPLUS RN

Benzenepropanoic acid, 2-[2-(2-naphthalenylamino)-2-oxoethoxy]-4-CN (1H-pyrazol-1-ylmethyl) - (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & \\ NH-C-CH_2-O & \\ HO_2C-CH_2-CH_2 \end{array}$$

RN499145-20-9 HCAPLUS

Benzenepropanoic acid, 2-[2-oxo-2-[(phenylmethyl)amino]ethoxy]-4-(1H-pyrazol-1-ylmethyl) - (9CI) (CA INDEX NAME)

RN 499145-21-0 HCAPLUS

CN Benzenepropanoic acid, 2-[2-oxo-2-[(1-phenylethyl)amino]ethoxy]-4-(1H-pyrazol-1-ylmethyl) - (9CI) (CA INDEX NAME)

RN 499153-29-6 HCAPLUS

CN Benzenepropanamide, N-[(3,4-difluorophenyl)sulfonyl]-2-[2-(1-naphthalenylamino)-2-oxoethoxy]-4-(1H-pyrazol-1-ylmethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \circ & \circ & \\ & \parallel & \\ & S-NH-C-CH_2-CH_2-CH_2 \\ & \circ & \\ & CH_2 \\ & C=0 \\ & NH \\ \end{array}$$

RN 499153-30-9 HCAPLUS

CN Benzenepropanamide, N-[(3,4-difluorophenyl)sulfonyl]-2-[2-oxo-2-[(phenylmethyl)amino]ethoxy]-4-(1H-pyrazol-1-ylmethyl)- (9CI) (CA INDEX NAME)

RN 499153-40-1 HCAPLUS

CN Acetamide, N-[(3,4-difluorophenyl)sulfonyl]-2-[2-[3-(2-naphthalenyl)propyl]-4-(1H-pyrazol-1-ylmethyl)phenoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

IC ICM C07C057-40 C07C057-44; C07C069-736; C07C229-34; C07C233-47; C07C233-55; C07C233-65; C07C233-81; C07C233-87; C07C235-38; C07C235-42; C07C235-46; C07C235-48; C07C235-54; C07C235-56; C07C237-30; C07C239-18; C07C255-37; C07C255-55; C07C255-57 CC 28-17 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 25, 27, 63 IT Alzheimer's disease Analgesics Anti-Alzheimer's agents Antiarteriosclerotics Antiasthmatics Anticoagulants Antidepressants Antihypertensives Antipyretics Antitumor agents Anxiety

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Anxiolytics
Arteriosclerosis
Asthma
Bone, disease
Burn
Calculi, biliary
  Diabetes insipidus
Diarrhea
Dysmenorrhea
Edema
Embolism
Fever and Hyperthermia
Hypertension
Immune disease
Immunomodulators
Kidney, disease
Learning disorders
Leucoma
Liver, disease
Lung, disease
Mental retardation
Multiple organ failure
Nerve, disease
Pain
Periodontium, disease
Pruritus
Psoriasis
Reproduction disorders
Stress, animal
Thrombus
Transplant and Transplantation
Urticaria
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IT

(preparation of aryl or heterocyclyl-substituted benzoic acid and alkanoic acid derivs. as antagonists of prostaglandin E2 (PEG2) receptors as therapeutic agents)

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   (preparation of aryl or heterocyclyl-substituted benzoic acid and
   alkanoic acid derivs. as antagonists of prostaglandin E2 (PEG2)
   receptors as therapeutic agents)
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(preparation of aryl or heterocyclyl-substituted benzoic acid and alkanoic acid derivs. as antagonists of prostaglandin E2 (PEG2) receptors as therapeutic agents)

REFERENCE COUNT:

14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L32 ANSWER 14 OF 38
                      HCAPLUS COPYRIGHT 2006 ACS on STN
                         2002:942792 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         138:24953
                         Preparation of N-sulfonylated phenylalanine
TITLE:
                         dipeptide derivatives as inhibitors of
                         leukocyte adhesion mediated by VLA-4
INVENTOR(S):
                         Thorsett, Eugene D.; Semko, Christopher M.;
                         Sarantakis, Dimitrios; Pleiss, Michael A.;
                         Lombardo, Louis John; Kreft, Anthony; Konradi,
                         Andrei W.; Grant, Francine S.; Dressen, Darren
                         B.; Dappen, Michael S.; Baudy, Reinhardt
                         Bernhard; Ashwell, Susan
PATENT ASSIGNEE(S):
                         Athena Neurosciences, Inc., USA; American Home
```

Products Corp.

SOURCE:

U.S., 71 pp. CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6492421	B1	20021210	US 1998-126095	
				1998
				0730
		•	< 	
PRIORITY APPLN. INFO.:			US 1997-104599P P	
				1997
				0731

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OTHER SOURCE(S): MARPAT 138:24953

Disclosed are title dipeptides R1SO2NR2CHR3-Q-CHR5CO2H [R1, R3 = (un) substituted alkyl, aryl, cycloalkyl, heterocyclyl or heteroaryl; R2 = H, (un) substituted cycloalkenyl, or any group given for R1; or R2 may form an (un) substituted heterocyclic ring with R1 or R3; R5 = (CH2)x-Ar-R5'; R5' = alkylcarbonylamino, alkoxyaryl, (hetero)aryl, alkylamino, alkenyl, alkoxyheterocyclyl, etc.; x = 1-4; Ar = (un)substituted (hetero)aryl; Q = C(X)NR7; R7 = H, alkyl; X = O, S (with provisos)] which bind VLA-4 (also referred to as $\alpha 4\beta 1$ integrin and CD49d/CD29). Certain of these compds. also inhibit leukocyte adhesion and, in particular, leukocyte adhesion mediated by VLA-4. Such compds. are useful in the treatment of inflammatory diseases in a mammalian patient, e.g., human, such as asthma, Alzheimer's disease, atherosclerosis, AIDS dementia, diabetes, inflammatory bowel disease, rheumatoid arthritis, tissue transplantation, tumor metastasis and myocardial ischemia. compds. can also be administered for the treatment of inflammatory brain diseases such as multiple sclerosis. Thus, condensation of N-tosyl-L-prolyl-4-amino-L-phenylalanine Me ester with N-(tert-butoxycarbonyl)glycine afforded N-tosyl-L-prolyl-4-[(Ntert-butoxycarbonylglycyl)amino]-L-phenylalanine.

IT 220397-47-7P 220397-52-4P

(preparation of N-sulfonylated aminophenylalanine dipeptide derivs. as inhibitors of leukocyte adhesion mediated by VLA-4)

RN 220397-47-7 HCAPLUS

CN L-Tyrosine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-O-[2-oxo-2-[(phenylmethyl)amino]ethyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220397-52-4 HCAPLUS

CN L-Tyrosine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-O-[2-[(1,1-dimethylethyl)amino]-2-oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IC ICM A61K031-19

ICS C07C311-00

INCL 514562000; 514217080; 514227800; 514254010; 514307000; 514363000;

514365000; 514400000; 514424000; 514542000

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 1, 63

IT AIDS (disease)

Alzheimer's disease

Anti-inflammatory agents

Antiasthmatics

Antidiabetic agents

Antirheumatic agents

Asthma

Atherosclerosis

Diabetes mellitus

Encephalitis

Human

Meningitis

Multiple sclerosis

Psoriasis

Rheumatoid arthritis

Transplant and Transplantation

(preparation of N-sulfonylated aminophenylalanine dipeptide derivs.

as inhibitors of leukocyte adhesion mediated by VLA-4)

IT 220396-91-8P 220396-93-0P 220396-94-1P 220396-95-2P 220396-96-3P 220396-97-4P 220396-98-5P 220396-99-6P 220397-01-3P 220397-03-5P 220397-04-6P 220397-06-8P

220397-08-0P 220397-09-1P 220397-10-4P 220397-11-5P

220397-12-6P 220397-13-7P 220397-14-8P 220397-15-9P

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     220398-31-2P
        (preparation of N-sulfonylated aminophenylalanine dipeptide derivs.
       as inhibitors of leukocyte adhesion mediated by VLA-4)
REFERENCE COUNT:
                         84
                               THERE ARE 84 CITED REFERENCES AVAILABLE
                               FOR THIS RECORD. ALL CITATIONS AVAILABLE
                               IN THE RE FORMAT
L32 ANSWER 15 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
                         2002:688154 HCAPLUS
DOCUMENT NUMBER:
                         137:232648
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ACCESSION NUMBER:

TITLE:

Preparation of pyrrolo[2,1-a]isoindole,

oxazolo[2,3-a]isoindole, and

imidazolo[2,3-a]isoindole derivatives as

remedies for diabetes and obesity and preventives for chronic diabetes

complications

INVENTOR(S):

Iino, Tomoharu; Sato, Yoshiyuki; Nishimura,

Teruyuki; Banba, Makoto; Eiki, Junichi;

Nagase, Toshio

PATENT ASSIGNEE(S):

Banyu Pharmaceutical Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho, 124 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

SOURCE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002255967	A2	20020911	JP 2001-52973	
				2001
				0227
			<	
PRIORITY APPLN. INFO.:			JP 2001-52973	
				2001
				0227
			<	

OTHER SOURCE(S):

MARPAT 137:232648

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Remedies for diabetes and obesity or preventives for AB chronic diabetes complications containing the title compds. [I; R = (un) substituted mono to tricyclic C7-15 aromatic group or mono to tricyclic aromatic heterocyclyl containing 1-5 heteroatoms selected from N, O, and S in each ring; R1 , R2 = H, N3, NH2, CONH2, carbamoylamino, carbamoyloxy, CO2H, cyano, SO2NH2, SO3H, NO2, halo, HO, CHO, formylamino, cyclic (un)saturated C3-9 aliphatic group, aralkyl, aralkylamino, aralkyloxy, aralkylcarbonyl, aryl, C1-6 alkoxy, linear or branched (un)saturated C1-9 aliphatic group, etc.; R3, R4 = H, N3, amidino, NH2, CONH2, carbamoylamino, carbamoyloxy, CO2H, guanidino, cyano, SO2NH2, SO3H, NO2, halo, HO, CHO, formylamino, cyclic (un)saturated C3-9 aliphatic group, C2-6 alkanoyl, N-C2-6 alkanoylamino, linear or branched (un)saturated C1-9 aliphatic group, etc.; or R3 and R4 together form a linear or branched C1-9 aliphatic group or 5- or 6-membered (un) saturated carbocyclic ring; X1 = O, S, (un) substituted NH; X2 = O, S; Y = O, S, (un) substituted NH or CH2] or pharmaceutically acceptable salts thereof as the active ingredients are claimed. The compds. I exhibits the activity for maintaining the high level of glucagon-like peptide-1 (GLP-1) in blood and improve hyperglycemic state. Thus, to a solution of 750 mg 2-(2-methoxybenzoyl)benzoic acid 550 mg D-valine Me ester hydrochloride in 40 mL CH2Cl2 were added 490 mg 1-hydroxybenzotriazole hydrate, 690 mg 1-ethyl-3-(3dimethylaminopropyl)carbodiimide hydrochloride, and 1.26 mL Et3N and stirred at room temperature for 3 h, concentrated under reduced pressure, dissolved in 15 MeOH, treated with 8 mL 4 N aqueous NaOH, stirred at room temperature for 12 h, and treated with 40 mL 1 N aqueous HCl and EtOAc. The organic layer was dried, concentrated under reduced pressure to give N-[2-(2-methoxybenzoyl)benzoyl]-D-valine which was stirred with 5 mL CF3CO2H at room temperature for 2 h to give 46% 9b-(2-methoxyphenyl)-3-(1-methylethyl)oxazolo[2,3-a]isoindole-2,5(3H,9bH)-dione. 9B-phenyl-3-(1-methylethyl)oxazolo[2,3-a]isoindole-2,5(3H,9bH)dione (II) at 30 mg/kg p.o. increased the serum level of GLP-1 from 1.6 pM (control) to 3.8 PM in male Wister rats after 30 min. A capsule formulation containing II was described.

IT 327599-44-0P

(preparation of pyrroloisoindole, oxazoloisoindole, and imidazoloisoindole derivs. for increasing serum GLP-1 activity as remedies for diabetes and obesity and preventives for chronic diabetes complications)

RN 327599-44-0 HCAPLUS

CN Acetamide, 2-[2-butyl-4-[2,3-dihydro-3-(1-methylethyl)-2,5-dioxooxazolo[2,3-a]isoindol-9b(5H)-yl]phenoxy]-N-propyl- (9CI) (CA INDEX NAME)

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n-Bu
n-PrNH-C-CH<sub>2</sub>-O
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CO7D498-14; CO7D513-04; CO7D513-14 CC 28-9 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1, 63

pyrroloisoindole oxazoloisoindole imidazoloisoindole prepn treatment **diabetes** obesity; chronic **diabetes** complication treatment oxazoloisoindole prepn

IT Diabetes mellitus

(chronic complications; preparation of pyrroloisoindole, oxazoloisoindole, and imidazoloisoindole derivs. for increasing serum GLP-1 activity as remedies for diabetes and obesity and preventives for chronic diabetes complications)

IT Antidiabetic agents

Antiobesity agents

Diabetes mellitus

Obesity

IT

(preparation of pyrroloisoindole, oxazoloisoindole, and imidazoloisoindole derivs. for increasing serum GLP-1 activity as remedies for diabetes and obesity and preventives for chronic diabetes complications)

IT 89750-14-1, Glucagon-like peptide I

(preparation of pyrroloisoindole, oxazoloisoindole, and imidazoloisoindole derivs. for increasing serum GLP-1 activity as remedies for diabetes and obesity and preventives for chronic diabetes complications)

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   as remedies for diabetes and obesity and preventives
   for chronic diabetes complications)
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        (preparation of pyrroloisoindole, oxazoloisoindole, and
        imidazoloisoindole derivs. for increasing serum GLP-1 activity
        as remedies for diabetes and obesity and preventives
        for chronic diabetes complications)
     75-16-1, Methylmagnesium bromide 85-44-9, Phthalic anhydride
                                    578-57-4, 2-Bromoanisole
     85-52-9, 2-Benzoylbenzoic acid
     1151-15-1, 2-(4-Methoxybenzoyl)benzoic acid 6638-79-5,
     N,O-Dimethylhydroxylamine hydrochloride 7146-15-8, D-Valine
                                 13139-86-1, 4-Methoxyphenylmagnesium
     methyl ester hydrochloride
    bromide
               22838-58-0
                            70717-76-9
        (preparation of pyrroloisoindole, oxazoloisoindole, and
        imidazoloisoindole derivs. for increasing serum GLP-1 activity
       as remedies for diabetes and obesity and preventives
        for chronic diabetes complications)
     1151-04-8P, 2-(2-Methoxybenzoyl)benzoic acid
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     327600-47-5P
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                                  457939-97-8P
                                                 457940-02-2P
     457940-08-8P
        (preparation of pyrroloisoindole, oxazoloisoindole, and
        imidazoloisoindole derivs. for increasing serum GLP-1 activity
        as remedies for diabetes and obesity and preventives
        for chronic diabetes complications)
L32 ANSWER 16 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         2002:658125 HCAPLUS
DOCUMENT NUMBER:
                         137:201333
TITLE:
                         Preparation of imidazoisoindole derivatives,
                         oxazoloisoindole derivatives, etc., as
                         remedies for diabetes and obesity
INVENTOR(S):
                         Iino, Tomoharu; Bamba, Makoto; Eiki, Junichi;
                         Nagase, Toshio
                         Banyu Pharmaceutical Co., Ltd., Japan
PATENT ASSIGNEE(S):
SOURCE:
                         PCT Int. Appl., 229 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         Japanese
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
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TΤ

IT

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002066479	A1	20020829	WO 2002-JP1576	2002 0222

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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PRIORITY APPLN. INFO.:

JP 2001-48394

2001

0223

OTHER SOURCE(S):

MARPAT 137:201333

The title compds. I [R represents amino, etc.; R1 and R2 are the same or different and each represents hydrogen, etc.; R3, R4, R5 and R6 independently represent each hydrogen, etc.; R7 represents hydrogen, etc.; X represents oxygen, etc.; Y represents oxygen, etc.; and Z represents fused aryl, etc.] are prepared I increase the blood level of GLP-1 (glucagon-like peptide 1) and are useful as remedies for diabetes, preventives for chronic complications of diabetes, and antiobesity agents. A compound of this invention at 0.3 mg/kg orally caused a significant increase of GLP-1 concentration in blood in rats. Formulations are given.

IT 453555-70-9P 453555-72-1P 453555-74-3P

Ι

(preparation of imidazoisoindole derivs. and oxazoloisoindole derivs., as remedies for **diabetes** and obesity)

RN 453555-70-9 HCAPLUS

CN Acetamide, 2-[4-[2,3-dihydro-3-(1-methylethyl)-5-oxo-1Himidazo[2,1-a]isoindol-9b(5H)-yl]-2-(3-hydroxy-2methylpropyl)phenoxy]-N-propyl- (9CI) (CA INDEX NAME)

HO-
$$CH_2$$
- CH - CH_2
 O - CH_2 - C - $NHPr$ - N
 O

RN 453555-72-1 HCAPLUS

CN Acetamide, 2-[4-[2,3-dihydro-3-(1-methylethyl)-5-oxo-1H-imidazo[2,1-a]isoindol-9b(5H)-yl]-2-(3-hydroxy-3-methylbutyl)phenoxy]-N-propyl- (9CI) (CA INDEX NAME)

RN 453555-74-3 HCAPLUS

CN Acetamide, 2-[4-[2,3-dihydro-3-(1-methylethyl)-5-oxo-1H-imidazo[2,1-a]isoindol-9b(5H)-yl]-2-(3-hydroxypropyl)phenoxy]-N-propyl- (9CI) (CA INDEX NAME)

IC ICM C07D471-04 ICS C07D487-04; C07D498-04; C07D498-14; C07D498-20; C07D513-04;

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C07D513-14; C07D513-20; A61K031-424; A61K031-429;
          A61K031-437; A61K031-4439; A61K031-497; A61K031-4985;
          A61K031-5025; A61K031-519; A61K031-5377; A61P003-04;
          A61P003-10; A61P043-00
     28-17 (Heterocyclic Compounds (More Than One Hetero Atom))
CC
     Section cross-reference(s): 1, 63
     imidazoisoindole oxazoloisoindole prepn diabetes obesity
ST
     remedv
     Antidiabetic agents
IT
     Antiobesity agents
     Obesity
        (preparation of imidazoisoindole derivs. and oxazoloisoindole
        derivs., as remedies for diabetes and obesity)
     Diabetes mellitus
ΙT
        (preparation of imidazoisoindole derivs. and oxazoloisoindole
        derivs., as remedies for diabetes and obesity, and
        preventives for complications of diabetes,)
IT
     89750-14-1, Glucagon-like peptide I
        (preparation and effect of imidazoisoindole derivs. and
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        and obesity)
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        derivs., as remedies for diabetes and obesity)
     67-56-1, Methanol, reactions 85-44-9, Phthalic anhydride
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     5395-67-5, 2-Bromo-N-propylacetamide
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                14804-31-0, 4-Bromo-2-methylanisole
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     reactions
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                   453556-06-4
        (preparation of imidazoisoindole derivs. and oxazoloisoindole
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derivs., as remedies for diabetes and obesity) 93012-28-3P 97356-10-0P 453555-98-1P 51671-71-7P IT 453556-00-8P

> (preparation of imidazoisoindole derivs. and oxazoloisoindole derivs., as remedies for diabetes and obesity)

REFERENCE COUNT:

THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L32 ANSWER 17 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

61

ACCESSION NUMBER:

2002:516372 HCAPLUS

DOCUMENT NUMBER:

137:78955

TITLE:

Preparation of benzimidazole- α -

substituted carboxylic acid derivatives for prevention and/or treatment of diseases such

as **diabetes**

INVENTOR(S):

Fujita, Takashi; Wada, Kunio; Oguchi, Minoru;

<---

Honma, Hidehito; Fujiwara, Toshihiko;

Iwabuchi, Haruo

PATENT ASSIGNEE(S):

SOURCE:

Sankyo Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 93 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002193948	A2	20020710	JP 2001-308762	
				2001
				1004
			<	
PRIORITY APPLN. INFO.:			JP 2000-307158 A	
				2000
				1006

OTHER SOURCE(S):

MARPAT 137:78955

GΙ

$$Z^2$$
 Q
 A
 N
 W^1-B
 W^2
 CO_2H
 R^3
 I

Disclosed are insulin-resistance improving agents, blood ΑB sugar-lowering agents, immune regulating agents, aldose reductase-inhibitors, 5-lipoxygenase-inhibitors, lipid peroxide formation-suppressing agents, peroxisome proliferator-activated receptor (PPAR)-activating agents leukotriene antagonists, fat cell-formation promoters, and calcium antagonists containing the title compds. [I; R1, R2, R3 = H, C1-6 alkyl, (un) substituted C6-10 aryl, (un) substituted C7-16, C1-6 alkylsulfonyl, C1-6 haloalkylsulfonyl, (un)substituted C6-10 arylsulfonyl, C7-16 aralkylsulfonyl; A = N, CH; B = O, S; W1 = C1-6 alkylene; W2 = single bond, C1-8 alkylene; X = H, C1-6 alkyl, C1-6 haloalkyl, C1-6 alkoxy, halo, HO, cyano, NO2, C3-10 cycloalkyl, (un) substituted C6-10 aryl, (un) substituted C7-16 aralkyl, C1-7 aliphatic acyl, C4-11 cycloalkylcarbonyl, (un) substituted C7-11 arylcarbonyl, C8-17 aralkylcarbonyl, (un) substituted monocyclic heterocyclylcarbonyl, CONH2, (un) substituted C7-11 arylaminocarbonyl, (un) substituted NH2; Y = O, S(0)p (p = 0-2); Z2 = (un)substituted saturated heterocyclyl orC6-10 aryl] or pharmacol. acceptable salts as the active ingredients. They are useful for the prevention and/or treatment of diabetes, impaired glucose tolerance, neurosis, cataract, coronary artery disease, and gestational diabetes. Thus, a solution of 3-[4-[[[4-[4-(adamantan-1yl)phenoxy]-2-(N-tert-butoxycarbonyl-Nmethylamino)phenyl]amino]carbonyl]methoxy]phenyl]-2-(4fluorobenzyloxy) propionic acid Me ester in 4 N HCl/dioxane was stirred at room temperature for 1 h to give 3-[4-[6-[4-(adamantan-1yl)phenoxy]-1-methyl-1H-benzimidazol-2-ylmethoxy]phenyl]-2-(4fluorobenzyloxy)propanoic acid Me ester which was stirred with a mixture of 2 n aqueous NaOH and methanol at room temperature for 2 h, treated with THF, stirred for 4 h, poured into water, and neutralized with HCl and aqueous NaHCO3 to give 3-[4-[[6-[4-(adamantan-1-y1)phenoxy]-1methyl-1H-benzimidazol-2-yl]methoxy]phenyl]-2-(4fluorobenzyloxy)propanoic acid (II). When a feed containing 0.01% II was fed to diabetic KK mice for 3 days, blood sugar level was lowered by 58.5%. A capsule, a tablet, and a granule formulation containing II were prepared 299175-84-1P 299175-86-3P 299175-96-5P 299176-05-9P

(preparation of benzimidazole- α -substituted carboxylic acid derivs. for prevention and/or treatment of diseases such as **diabetes** and impaired glucose tolerance)

RN 299175-84-1 HCAPLUS

IT

CN

Benzenepropanoic acid, $4-[2-[[2-[[(1,1-dimethylethoxy)carbonyl]methylamino]-4-(4-tricyclo[3.3.1.13,7]dec-1-ylphenoxy)phenyl]amino]-2-oxoethoxy]-<math>\alpha$ -[(4-fluorophenyl)methoxy]-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 299175-86-3 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-<math>\alpha$ -[(4-fluorophenyl)methoxy]-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 299175-96-5 HCAPLUS

CN L-Tyrosine, N-(2-benzoylphenyl)-O-[2-[[4-[4-[[(1,1-dimethylethoxy)carbonyl]amino]-3,5-dimethylphenoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

RN 299176-05-9 HCAPLUS

IC ICM C07D235-12 ICS A61K031-4184; A61K031-7056; A61P001-00; A61P001-04;

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A61P001-16; A61P003-00; A61P003-04; A61P003-06; A61P003-10;
         A61P005-24; A61P009-00; A61P009-10; A61P009-12; A61P011-06;
        A61P013-12; A61P015-00; A61P017-00; A61P017-06; A61P019-02
     28-9 (Heterocyclic Compounds (More Than One Hetero Atom))
CC
    Section cross-reference(s): 1, 7, 63
ST
    benzimidazole substituted carboxylic acid prepn prevention
     treatment diabetes; impaired glucose tolerance
    prevention treatment phenylpropanoic acid prepn; neurosis cataract
    phenylpropanoic acid prepn; coronary artery disease
    phenylpropanoic acid prepn; gestational diabetes
    phenylpropanoic acid prepn; benzimidazolylmethoxyphenylfluorobenzy
     loxypropanoic acid prepn calcium antagonist;
    phenylfluorobenzyloxypropanoic acid benzimidazolylmethoxy prepn;
     insulin resistance improver phenylpropanoic acid prepn; blood
     sugar lowering agent phenylpropanoic acid prepn; immune regulating
     agent phenylpropanoic acid prepn; aldose reductase inhibitor
    phenylpropanoic acid prepn; lipoxygenase inhibitor phenylpropanoic
     acid prepn; lipid peroxide formation suppressant phenylpropanoic
     acid prepn; peroxisome proliferator activated receptor
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activator phenylpropanoic acid prepn; leukotriene antagonist phenylpropanoic acid prepn; fat cell formation promoter

phenylpropanoic acid prepn; calcium antagonist phenylpropanoic

IT Peroxisome proliferator-activated receptors

(activators; preparation of benzimidazole- α -substituted carboxylic acid derivs. for prevention and/or treatment of diseases such as **diabetes** and impaired glucose tolerance)

IT Adipose tissue

acid prepn

(adipocyte, formation promoters; preparation of benzimidazole- α -substituted carboxylic acid derivs. for prevention and/or treatment of diseases such as **diabetes** and impaired glucose tolerance)

IT Artery, disease

(coronary; preparation of benzimidazole- α -substituted carboxylic acid derivs. for prevention and/or treatment of diseases such as **diabetes** and impaired glucose tolerance)

IT Pregnancy disorders

(gestational diabetes; preparation of benzimidazole- α -substituted carboxylic acid derivs. for prevention and/or treatment of diseases such as diabetes and impaired glucose tolerance)

IT Peroxides, biological studies

(lipid, formation inhibitors; preparation of benzimidazole- α -substituted carboxylic acid derivs. for prevention and/or treatment of diseases such as **diabetes** and impaired glucose tolerance)

IT Mental and behavioral disorders

(neurosis; preparation of benzimidazole- α -substituted carboxylic acid derivs. for prevention and/or treatment of diseases such as **diabetes** and impaired glucose tolerance)

IT Lipids, biological studies

(peroxides, formation inhibitors; preparation of benzimidazole- α -substituted carboxylic acid derivs. for prevention and/or treatment of diseases such as **diabetes** and impaired glucose tolerance)

IT Calcium channel blockers Cataract

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Diabetes mellitus
     Immunomodulators
     Leukotriene antagonists
        (preparation of benzimidazole-α-substituted carboxylic acid
        derivs. for prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
     Carboxylic acids, preparation
IT
        (preparation of benzimidazole-\alpha-substituted carboxylic acid
        derivs. for prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
     1548-13-6, 4-(Trifluoromethyl)phenyl isocyanate
TT
        (N-carbamoylation; preparation of benzimidazole-\alpha-substituted
        carboxylic acid derivs. for prevention and/or treatment of
        diseases such as diabetes and impaired glucose
        tolerance)
    299176-22-0
IT
        (S-acetylation; preparation of benzimidazole-\alpha-substituted
        carboxylic acid derivs. for prevention and/or treatment of
        diseases such as diabetes and impaired glucose
        tolerance)
     440355-17-9
IT
        (S-methylation; preparation of benzimidazole-\alpha-substituted
        carboxylic acid derivs. for prevention and/or treatment of
        diseases such as diabetes and impaired glucose
     306-23-0, 3-(4-Hydroxyphenyl) lactic acid
IT
        (acetonation of hydroxyphenyllactic acid; preparation of
        benzimidazole-\alpha-substituted carboxylic acid derivs. for
        prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
     299176-28-6
TT
        (amidation with ammonia; preparation of benzimidazole-\alpha-
        substituted carboxylic acid derivs. for prevention and/or
        treatment of diseases such as diabetes and impaired
        glucose tolerance)
     179087-93-5
IT
        (amidation with aniline derivative; preparation of benzimidazole-\alpha-
        substituted carboxylic acid derivs. for prevention and/or
        treatment of diseases such as diabetes and impaired
        glucose tolerance)
IT
     314271-24-4
        (amidation with phenoxyacetic acid derivative; preparation of
        benzimidazole-\alpha-substituted carboxylic acid derivs. for
        prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
     459-46-1, 4-Fluorobenzyl bromide
IT
        (benzylation of phenyllactic acid derivative; preparation of
        benzimidazole-\alpha-substituted carboxylic acid derivs. for
        prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
     299176-17-3
IT
        (etherification with adamantylphenol; preparation of
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benzimidazole- α -substituted carboxylic acid derivs. for

prevention and/or treatment of diseases such as

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IT
     157439-51-5
        (etherification with methoxymethyl chloride; preparation of
        benzimidazole-\alpha-substituted carboxylic acid derivs. for
        prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
IT
     5437-45-6, Benzyl bromoacetate
        (etherification with phenol derivative; preparation of
        benzimidazole-α-substituted carboxylic acid derivs. for
        prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
IT
     51095-47-7
        (etherification with tert-Bu bromoacetate or acetonation with
        acetone; preparation of benzimidazole-α-substituted carboxylic
        acid derivs. for prevention and/or treatment of diseases such
        as diabetes and impaired glucose tolerance)
IT
     7355-18-2
        (glycosidation with hydroxybenzimidazole derivative; preparation of
        benzimidazole-\alpha-substituted carboxylic acid derivs. for
        prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
     50-99-7, D-Glucose, biological studies
IT
        (impaired glucose tolerance; preparation of benzimidazole-\alpha-
        substituted carboxylic acid derivs. for prevention and/or
        treatment of diseases such as diabetes and impaired
        glucose tolerance)
     9028-31-3, Aldose reductase
                                    80619-02-9, 5-Lipoxygenase
IT
        (inhibitors; preparation of benzimidazole-\alpha-substituted
        carboxylic acid derivs. for prevention and/or treatment of
        diseases such as diabetes and impaired glucose
        tolerance)
IT
     299175-55-6P
                    299175-56-7P
                                    299175-57-8P
                                                   299175-68-1P
     299175-74-9P
                    299175-75-0P
                                   299175-77-2P
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     299176-10-6P
                    440355-00-0P
                                    440355-03-3P
                                                   440355-05-5P
     440355-06-6P
                    440355-10-2P
                                    440355-12-4P
        (preparation of benzimidazole-\alpha-substituted carboxylic acid
        derivs. for prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
IT
     299175-39-6P
                    299175-40-9P
                                    299175-41-0P
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     299175-45-4P
                    299175-48-7P
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     440355-24-8P
                    440355-25-9P
        (preparation of benzimidazole-\alpha-substituted carboxylic acid
        derivs. for prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
IT
     5292-43-3, tert-Butyl bromoacetate
                                           29799-07-3,
     4-(1-Adamantyl)phenol
        (preparation of benzimidazole-α-substituted carboxylic acid
        derivs. for prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
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299175-92-1P

299175-91-0P

299175-89-6P

299175-90-9P

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KUMAR 10/517,581
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                    299176-07-1P
                                   321595-74-8P
                                                   332944-40-8P
     299176-06-0P
     440355-16-8P
        (preparation of benzimidazole-\alpha-substituted carboxylic acid
        derivs. for prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
     299176-23-1P
        (rat's metabolite; preparation of benzimidazole-\alpha-substituted
        carboxylic acid derivs. for prevention and/or treatment of
        diseases such as diabetes and impaired glucose
     3580-38-9, 2-Benzoylcyclohexanone
        (reductive amination and aromatization; preparation of
        benzimidazole-\alpha-substituted carboxylic acid derivs. for
        prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
     3417-91-2, L-Tyrosine methyl ester hydrochloride
        (reductive amination of benzoylcyclohexanone; preparation of
        benzimidazole-\alpha-substituted carboxylic acid derivs. for
        prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
     9004-10-8, Insulin, biological studies
        (resistance improver; preparation of benzimidazole-\alpha-
        substituted carboxylic acid derivs. for prevention and/or
        treatment of diseases such as diabetes and impaired
        glucose tolerance)
     299176-11-7
        (ring-cleavage and esterification with ethanol; preparation of
        benzimidazole-\alpha-substituted carboxylic acid derivs. for
        prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
     150556-70-0
        (ring-opening hydrolysis; preparation of benzimidazole-\alpha-
        substituted carboxylic acid derivs. for prevention and/or
        treatment of diseases such as diabetes and impaired
        glucose tolerance)
     950-59-4
        (thioetherification with chloronitroaniline derivative; preparation of
        benzimidazole-\alpha-substituted carboxylic acid derivs. for
        prevention and/or treatment of diseases such as
        diabetes and impaired glucose tolerance)
L32 ANSWER 18 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
                         2002:484863 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         137:47448
                         Preparation of substituted phenylalaninol
TITLE:
                         derivatives as protein tyrosine phosphatase
                         inhibitors
                         Larsen, Scott D.; May, Paul D.; Bleasdale,
INVENTOR(S):
                         John E.; Liljebris, Charlotta; Schostarez,
                         Heinrich Josef; Barf, Tjeerd; Nilsson,
                         Marianne
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PATENT ASSIGNEE(S): USA

U.S., 144 pp., Cont.-in-part of U.S. Ser. No. SOURCE:

138,642.

CODEN: USXXAM

DOCUMENT TYPE:

LANGUAGE:

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Patent English

FAMILY ACC. NUM. COUNT: 3 PATENT INFORMATION:

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USHA SHRESTHA EIC 1600 REM 1A64

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OTHER SOURCE(S):

MARPAT 137:47448

GI

$$\begin{array}{c|c} R^{10} & & H \\ & & \\ R^{1} & & HO \end{array}$$

$$Q = -CHN$$

$$\downarrow R7$$

AB The invention comprises phenylalaninol derivs., e.g., I [R1 = OSO3H, OCH(CO2R5)2, OCH2CO2R5, OCH(CO2R5)CH2CO2R5, OC(CO2R5):CHCO2R5, CH2CH(CO2R5)2, CH:C(CO2R5)2, OCH2CONHOH, N(CH2CO2R5)2, OCHFCO2R5 (R5 = H, alkyl, alkylphenyl); R2 = CHR7NHXR6, group Q (R6 = alkyl, alkyl-CONH2, alkyl-NHCO2R5, etc.; R7 = H, any group given for R6); R10 = H, CO2R5, CONHOH, 5-tetrazolyl, F, OCH2CO2R5], or their pharmaceutically acceptable salts, as small mol. weight, non-peptidic inhibitors of protein tyrosine phosphatase 1 (PTP1) which are useful for the treatment and/or prevention of non-insulin dependent diabetes mellitus. Thus, 5-[(2S)-2-[[(2S)-2-[(tert-butoxycarbonyl)amino]-3-phenylpropanoyl]amino]-3-hydroxypropyl]-2-(carboxymethoxy)benzoic acid (claimed compound) was prepared and showed 80% inhibition of protein tyrosine phosphatase 1B at a concentration of 10 μM.

IT 221076-84-2P

(preparation of substituted phenylalanine derivs. as protein tyrosine phosphatase inhibitors)

RN 221076-84-2 HCAPLUS

CN L-Tyrosinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl-3-carboxy-O-[2-(hydroxyamino)-2-oxoethyl]-N-pentyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 221077-60-7P

(preparation of substituted phenylalanine derivs. as protein tyrosine phosphatase inhibitors)

RN 221077-60-7 HCAPLUS

CN L-Tyrosinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl-O[2-(hydroxyamino)-2-oxoethyl]-3-(methoxycarbonyl)-N-pentyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

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IC ICM C07C235-00
ICS C07C237-22; A61K031-165
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phenylalaninol deriv prepn

INCL 514424000

IT

CC 34-3 (Amino Acids, Peptides, and Proteins) Section cross-reference(s): 1, 7, 63

ST phenylalaninol deriv prepn protein tyrosine phosphatase inhibitor; noninsulin dependent **diabetes** mellitus treatment

IT Diabetes mellitus

(non-insulin-dependent; preparation of substituted phenylalanine derivs. as protein tyrosine phosphatase inhibitors)

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                                                   292835-83-7P
        (preparation of substituted phenylalanine derivs. as protein
        tyrosine phosphatase inhibitors)
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        (preparation of substituted phenylalanine derivs. as protein
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                                THERE ARE 19 CITED REFERENCES AVAILABLE
REFERENCE COUNT:
                         19
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L32 ANSWER 19 OF 38
ACCESSION NUMBER:
                         2002:368462
                                      HCAPLUS
DOCUMENT NUMBER:
                         136:386118
TITLE:
                         Preparation of (phenylalkyl)-1H-
                          [1,2,4] triazolones as PPARa agonists for
                         treatment of cardiovascular disease associated
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INVENTOR(S):

ett Topac.

with Syndrome X and related conditions
Mantlo, Nathan Bryan; Collado Cano, Ivan;
Dominianni, Samuel James; Etgen, Garret Jay,
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Richard Duane; Letourneau, Michael Edward;
Martinelli, Michael John; Mayhugh, Daniel Ray;
Saeed, Ashraf; Thompson, Richard Craig; Wang,
Xiadong; Coffey, David Scott; Schmid,
Christopher Randall; Vicenzi, Jeffrey Thomas;

Xu, Yanping

PATENT ASSIGNEE(S):

SOURCE:

Eli Lilly and Company, USA PCT Int. Appl., 388 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

W0 2002038553 A2 20020516 W0 2001-US42928 2001 1109 C W0 2002038553 A3 20030501 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2002028592 A5 20020521 AU 2002-28592 EP 1335908 A2 20030820 EP 2001-989704 EP 1335908 A2 20030820 EP 2001-989704 ER: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR BR 2001014986 A 20030923 BR 2001-14986 TO AU 2004513166 T2 20040430 JP 2002-541088 2001 2001 2001 2001 2001 2001 2001		IT NO.	KIND	DATE	APPLICATION NO.	DATE
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PRIORITY APPLN. INFO.:			US	2000-247317P	P	
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OTHER SOURCE(S): MARPAT 136:386118

GI

$$E-Y \xrightarrow{\mid I \mid} X \xrightarrow{N-N} W$$

$$R^{9} \xrightarrow{\mid R^{2} \mid} I$$

Title compds. I [wherein R1 = H or (un) substituted alkyl, AB (hetero)arylalkyl, cycloalkylarylalkyl, CH2COR17R18; R17 = O or NH; R18 = (un) substituted benzyl; W = O or S; R2 = H or (un) substituted (cyclo) alkyl, allyl, (hetero) arylalkyl, sulfonamido, amido, or OR10; R10 = H or alkyl; X = (un)substituted alkylene linker wherein 1 C may be replaced with O, NH, or S; Y = C, O, S, NH, or a single bond; E = H, CR3R4A; A, (un)substituted (CH2) nCO2C19, (aryl) alkyl, allyl, thioalkyl, thioaryl, alkoxyaryl, alkoxyalkyl, aminoaryl, or aminoalkyl; n = 0-3; A = carboxy, alkylnitrile, carboxamide, or (un) substituted sulfonamide, acylsulfonamide, or tetrazole; R3 = H, alkyl, or alkoxy; R4 = H, halo, or (un) substituted (cyclo) alkyl, alkoxy, arylalkyl, or Ph; or CR3R4 = cycloalkyl; R19 = H or (un)substituted arylmethyl or alkyl; R8 = independently H, alkyl, alkenyl, or halo; R9 = independently H, alkenyl, halo, allyl, OR10, or (un) substituted alkyl or (hetero)aryl; R10 = independently H or alkyl] were prepared as peroxisome proliferator activated receptor alpha (PPARα) agonists. For example, condensation of 3-chlorobenzaldehyde with 4-(4-hydroxyphenyl)butyrylhydrazide (p-TsOH, i-PrOH), followed by reduction (NaBH3CN, THF, AcOH, i-PrOH), treatment with n-PrNCO (THF), and cyclization (KOH, MeOH), afforded 2-(3-chlorobenzyl)-5-[3-(4-hydroxyphenyl)propyl]-4-propyl-3H-triazolin-3-one. Addition of tert-Bu 2-bromoisobutyrate (K2CO3, DMF) and deesterification (TFA, CH2Cl2) gave II. I bound to PPAR α receptors with IC50 values of \leq 100 nM and demonstrated PPAR α cotransfection efficacy in CV-1 cells of ≥ 50%. Significant reduction in RQ in female Ay mice [0.864 \pm 0.013 (control) vs. 0.803 \pm 0.007 (treated); p < 0.001] was observed at doses of 50 mg/kg of I. Addnl., treated animals displayed significantly higher rates of energy expenditure than control animals (17.40 \pm 0.49 vs. 13.62 \pm 0.26 kcal/kg/h, resp.). Thus, I are useful for the prevention and/or treatment of cardiovascular disease associated with Syndrome X, hyperinsulemia, hypertension, elevated body weight, elevate triglycerides, and elevated LDL. IT 425671-55-2P 425671-56-3P 425671-57-4P 425671-58-5P 425671-59-6P 425671-60-9P

425671-61-0P 425671-62-1P 425671-63-2P 425671-77-8P 425671-78-9P 425671-79-0P

(cardiovascular agent; preparation of (phenylalkyl)triazolones as $PPAR\alpha$ agonists for treatment of cardiovascular disease associated with Syndrome X and related conditions)

RN 425671-55-2 HCAPLUS

CNPropanamide, 2-[4-[3-[1-[[4-(1,1-dimethylethyl)phenyl]methyl]-4-, ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl]propyl]phenoxy]-2methyl-N-[(trifluoromethyl)sulfonyl]- (9CI) (CA INDEX NAME)

425671-56-3 HCAPLUS RN

CN Propanamide, 2-[4-[3-[1-[[4-(1,1-dimethylethyl)phenyl]methyl]-4-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl]propyl]phenoxy]-2-methyl-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

RN 425671-57-4 HCAPLUS

CN Propanamide, 2-[4-[3-[1-[[4-(1,1-dimethylethyl)phenyl]methyl]-4-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl]propyl]phenoxy]-2-methyl-N-[(phenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 425671-58-5 HCAPLUS

CN Propanamide, 2-[4-[3-[1-[[4-(1,1-dimethylethyl)phenyl]methyl]-4-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl]propyl]phenoxy]-N-[(4-methoxyphenyl)sulfonyl]-2-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

__Bu-t

RN 425671-59-6 HCAPLUS

CN Propanamide, 2-[4-[3-[1-[[4-(1,1-dimethylethyl)phenyl]methyl]-4-

ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl]propyl]phenoxy]-2methyl-N-(2-naphthalenylsulfonyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

`Bu-t

425671-60-9 HCAPLUS RN

Propanamide, 2-[4-[3-[1-[[4-(1,1-dimethylethyl)phenyl]methyl]-4-CNethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl]propyl]phenoxy]-2methyl-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)

RN

425671-61-0 HCAPLUS Propanamide, N-[(5-bromo-2-thienyl)sulfonyl]-2-[4-[3-[1-[[4-(1,1-CN dimethylethyl)phenyl]methyl]-4-ethyl-4,5-dihydro-5-oxo-1H-1,2,4triazol-3-yl]propyl]phenoxy]-2-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

__Bu-t

RN 425671-62-1 HCAPLUS

CN Propanamide, N-[(3-chlorophenyl)sulfonyl]-2-[4-[3-[1-[[4-(1,1-dimethylethyl)phenyl]methyl]-4-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl]propyl]phenoxy]-2-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

__Bu-t

RN 425671-63-2 HCAPLUS

CN Propanamide, 2-[4-[3-[1-[[4-(1,1-dimethylethyl)phenyl]methyl]-4-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl]propyl]phenoxy]-N-[(6-ethoxy-2-benzothiazolyl)sulfonyl]-2-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A

EtO O Me
$$(CH_2)_3$$
 N CH_2

N O Me O Me

USHA SHRESTHA EIC 1600 REM 1A64

PAGE 1-B

RN 425671-77-8 HCAPLUS

CN Acetamide, 2-[4-[3-[4,5-dihydro-1-[(4-methylphenyl)methyl]-5-oxo-4-propyl-1H-1,2,4-triazol-3-yl]propyl]phenoxy]-N[(trifluoromethyl)sulfonyl]- (9CI) (CA INDEX NAME)

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RN 425671-78-9 HCAPLUS

CN Acetamide, 2-[4-[3-[4,5-dihydro-1-[(4-methylphenyl)methyl]-5-oxo-4-propyl-1H-1,2,4-triazol-3-yl]propyl]phenoxy]-N-[(4-methoxyphenyl)sulfonyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 425671-79-0 HCAPLUS

CN Propanamide, 2-[4-[3-[4,5-dihydro-1-[(4-methylphenyl)methyl]-5-oxo-4-propyl-1H-1,2,4-triazol-3-yl]propyl]phenoxy]-2-methyl-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)

IC ICM C07D249-12
ICS A61K031-4196; C07D401-06; C07D413-06; C07D409-06; C07D409-12;
C07D417-12; C07D405-06; A61K031-4439; A61K031-427;
C07C257-22; C07C281-04; C07C281-06
CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))

CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1

IT

ST phenylalkyl triazolone prepn **peroxisome** proliferator activated receptor alpha agonist; triazolone phenylalkyl prepn Syndrome X treatment; triazolylalkylphenoxy propionate prepn cardiovascular agents

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425671-56-3P 425671-57-4P 425671-58-5P
425671-59-6P 425671-60-9P 425671-61-0P
425671-62-1P 425671-63-2P
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              425671-66-5P
                              425671-67-6P
                                             425671-68-7P
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425671-69-8P
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                              425671-75-6P
                                             425671-76-7P
425671-73-4P
425671-77-8P 425671-78-9P 425671-79-0P
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                                             425671-87-0P
425671-88-1P
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                                             425671-91-6P
             425671-93-8P
                              425671-94-9P
                                             425671-95-0P
425671-92-7P
425671-96-1P
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              425671-97-2P
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               425672-01-1P
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425672-00-0P
Methoxybenzyl)-5-oxo-4,5-dihydro-1H-1,2,4-triazol-3-
yl]propyl]phenoxy]-2-methylpropionic acid
                                            425672-03-3P
              425672-05-5P
425672-04-4P
                              425672-06-6P
                                             425672-07-7P,
2-Methyl-2-[4-[2-[5-oxo-4-propyl-1-(4-trifluoromethylphenyl)-4,5-
dihydro-1H-1,2,4-triazol-3-yl]ethyl]phenoxy]propionic acid
425672-08-8P, [4-[2-[5-0xo-4-propyl-1-(4-trifluoromethylphenyl)-
4,5-dihydro-1H-1,2,4-triazol-3-yl]ethyl]phenoxy]acetic acid
425672-09-9P
               425672-10-2P
                              425672-11-3P, [4-[2-[4-[2-(2-
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                                                 425672-12-4P,
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trifluoromethylphenyl)-4,5-dihydro-1H-1,2,4-triazol-3-
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                                          425672-13-5P,
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trifluoromethylphenyl)-4,5-dihydro-1H-1,2,4-triazol-3-
yl]propyl]phenoxy]acetic acid 425672-14-6P, 2-[4-[3-[4-[2-(2-
Fluorophenyl)ethyl]-5-oxo-1-(4-trifluoromethylphenyl)-4,5-dihydro-
1H-1,2,4-triazol-3-yl]propyl]phenoxy]-2-methylpropionic acid
425672-15-7P
              425672-16-8P
                              425672-18-0P
                                            425672-19-1P,
[2-Iodo-4-[2-[5-oxo-4-propyl-1-(4-trifluoromethylphenyl)-4,5-
dihydro-1H-1,2,4-triazol-3-yl]ethyl]phenoxy]acetic acid
425672-20-4P, [4-[2-[4-[2-(2-Fluorophenyl)ethyl]-5-oxo-1-(4-
trifluoromethylphenyl)-4,5-dihydro-1H-1,2,4-triazol-3-yl]ethyl]-2-
methylphenoxy]acetic acid 425672-21-5P, 2-[4-[2-[4-[2-(2-
Fluorophenyl) ethyl] -5-oxo-1-(4-trifluoromethylphenyl) -4,5-dihydro-
1H-1,2,4-triazol-3-yl]ethyl]-2-methylphenoxy]-2-methylpropionic
       425672-22-6P, [4-[3-[4-[2-(2-Fluorophenyl)ethyl]-5-oxo-1-(4-
trifluoromethylphenyl)-4,5-dihydro-1H-1,2,4-triazol-3-yl]propyl]-2-
methylphenoxy]acetic acid 425672-23-7P, 2-[4-[3-[4-[2-(2-
Fluorophenyl)ethyl]-5-oxo-1-(4-trifluoromethylphenyl)-4,5-dihydro-
1H-1,2,4-triazol-3-yl]propyl]-2-methylphenoxy]-2-methylpropionic
acid
       425672-24-8P
                      425672-25-9P
                                     425672-26-0P
                                                    425672-27-1P
425672-29-3P
               425672-30-6P
   (cardiovascular agent; preparation of (phenylalkyl)triazolones as
   PPARα agonists for treatment of cardiovascular disease
   associated with Syndrome X and related conditions)
```

L32 ANSWER 20 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2002:286703 HCAPLUS DOCUMENT NUMBER: 136:309930

1006

TITLE: Preparation of benzimidazole derivatives for

treatment and prevention of diabetes

INVENTOR(S): Fujita, Takashi; Wada, Kunio; Koguchi, Minoru;

Honma, Eiji; Fujiwara, Toshihiko

PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 135 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002114781	A2	20020416	JP 2000-307157	
				2000
				1006
			<	
PRIORITY APPLN. INFO.:			JP 2000-307157	
				2000

OTHER SOURCE(S):

MARPAT 136:309930

GI

AB The title compds. I [R1 - R6 = H, alkyl, etc.; n, q = 1 - 5; Q, Y = 0, S; X = CH2, etc.; Z = CH, N; A = (CH2)mCH(CO2H)BR7, etc.; B = 0, etc.; R7 = H, alkyl, etc.; m = 0 - 8] are prepared Compds. of this invention at 0.01% in feed (given for 3 days) gave 34.9% to 66.7% decrease of blood sugar in diabetic KK mice.

IT 300666-05-1P 300666-10-8P 300666-13-1P 300666-14-2P 300666-15-3P 300666-16-4P 300666-17-5P 300666-18-6P 300666-19-7P

300666-20-0P 300666-21-1P 300666-22-2P

300666-27-7P 300666-28-8P 300666-31-3P (preparation of benzimidazole derivs. for treatment and prevention

of diabetes)
RN 300666-05-1 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-<math>\alpha-(2,2,2-trifluoroethoxy)$ -, methyl ester (9CI) (CA INDEX

Ι

NAME)

PAGE 1-B

RN 300666-10-8 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]- <math>\alpha-[[(4-fluorophenyl)methyl]thio]-$, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-13-1 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]α-hydroxy-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-14-2 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-<math>\alpha$ -(phenylthio)-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-15-3 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]α-[(4-nitrophenyl)thio]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-16-4 HCAPLUS

CN Benzenepropanoic acid, α -(4-cyanophenoxy)-4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-17-5 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-α-[(4-methylphenyl)thio]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c} \text{O} \quad \text{Me} \\ \text{t-BuO-C-N} \\ \text{Me} \\ \text{Me} \\ \text{O} \\ \text{CH}_2 - \text{O} \\ \text{Me} \\ \text{Me} \\ \text{NH-C-CH}_2 - \text{O} \\ \text{Me} \\ \text{Me} \\ \text{NH-C-CH}_2 - \text{O} \\ \text{Me} \\ \text{Me}$$

PAGE 1-B

RN 300666-18-6 HCAPLUS

CN Benzenepropanoic acid, α -[(4-chlorophenyl)thio]-4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c} \text{O} \quad \text{Me} \\ \text{t-BuO-C-N} \\ \text{Me} \\ \text{O} \\ \text{CH}_2 - \text{O} \\ \text{Me} \\ \text{Me} \\ \text{O} \\ \text{Me} \\ \text{O} \\ \text{Me} \\ \text{O} \\$$

PAGE 1-B

RN 300666-19-7 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]- <math>\alpha$ -[[4-(1,1-dimethylethyl)phenyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-20-0 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-<math>\alpha-[(4-methoxyphenyl)thio]-$, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-21-1 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-<math>\alpha$ -ethoxy-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c} \text{O} \quad \text{Me} \\ \text{t-BuO-C-N} \\ \text{Me} \\ \text{O} \\ \text{CH}_2 - \text{O} \\ \text{Me} \\ \text{Me} \end{array}$$

PAGE 1-B

RN 300666-22-2 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]- <math>\alpha-[(4-fluorophenyl)methoxy]-$, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-27-7 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-<math>\alpha$ -phenoxy-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-28-8 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-<math>\alpha$ -(4-nitrophenoxy)-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-31-3 HCAPLUS

CN Benzenepropanoic acid, α -[bis(4-fluorophenyl)methoxy]-4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-

benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylam ino]phenyl]amino]-2-oxoethoxy]-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

8 1

IC ICM C07D405-12

ICS A61K031-4184; A61K031-427; A61K031-437; A61P003-06; A61P003-10; A61P003-14; A61P019-10; A61P035-00; A61P043-00; C07D417-14; C07D471-04

CC 28-9 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1

ST benzimidazole deriv prepn diabetes treatment

IT Allergy inhibitors

Anti-inflammatory agents

Antiasthmatics

Antidiabetic agents

Antiobesity agents

Antitumor agents

Calcium channel blockers

Immunomodulators

Leukotriene antagonists

(benzimidazole derivs.)

IT Diabetes mellitus

(pregnancy; preparation and effect of benzimidazole derivs.)

IT Peroxisome proliferator-activated receptors

(preparation and effect of benzimidazole derivs.)

```
TT
                    300665-60-5P
                                   300665-62-7P
                                                  300665-64-9P
     300665-58-1P
                                                  300665-78-5P
     300665-72-9P
                    300665-74-1P
                                   300665-76-3P
                                                  300665-86-5P
                    300665-82-1P
                                   300665-84-3P
     300665-80-9P
                    410082-26-7P
     410082-23-4P
        (preparation of benzimidazole derivs. for treatment and prevention
        of diabetes)
                    300665-59-2P
                                                  300665-63-8P
IT
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     410082-35-8P
        (preparation of benzimidazole derivs. for treatment and prevention
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     75-03-6, Ethyl iodide
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                           106-54-7, Benzenethiol, 4-chloro-
     reactions
                 106-45-6
     108-95-2, Phenol, reactions
                                  108-98-5, Thiophenol, reactions
               459-46-1, 4-Fluorobenzyl bromide
                                                  593-56-6,
     O-Methylhydroxylamine hydrochloride
                                           598-31-2, Bromoacetone
     696-63-9, Benzenethiol, 4-methoxy-
                                          767-00-0, 4-Cyanophenol
     1849-36-1, 4-Nitrothiophenol
                                    2396-68-1
                                               2687-43-6,
     O-Benzylhydroxylamine hydrochloride
                                           5292-43-3, tert-Butyl
     bromoacetate
                  5470-11-1, Hydroxylamine hydrochloride
     27064-94-4, 4,4'-Difluorobenzhydryl chloride
                                                    66901-79-9
     107188-55-6
                 107255-73-2
                                 150556-71-1
                                               156335-18-1
     179087-93-5
                  299175-81-8
                                 299176-17-3
        (preparation of benzimidazole derivs. for treatment and prevention
        of diabetes)
IT
     62517-34-4P
                  300666-00-6P
                                  300666-01-7P
                                                 300666-02-8P
     300666-03-9P
                    300666-04-0P 300666-05-1P
                                                300666-06-2P
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     300666-11-9P
     300666-14-2P 300666-15-3P 300666-16-4P
     300666-17-5P 300666-18-6P 300666-19-7P
     300666-20-0P 300666-21-1P 300666-22-2P
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                    300666-35-7P
                                   300666-36-8P
                                                  300666-37-9P
     300666-38-0P
                   300666-39-1P
        (preparation of benzimidazole derivs. for treatment and prevention
        of diabetes)
L32 ANSWER 21 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         2002:237769 HCAPLUS
DOCUMENT NUMBER:
                         137:2321
                         Investigation of Potential Bioisosteric
TITLE:
                         Replacements for the Carboxyl Groups of
                         Peptidomimetic Inhibitors of Protein Tyrosine
                         Phosphatase 1B: Identification of a
                         Tetrazole-Containing Inhibitor with Cellular
                         Activity
                         Liljebris, Charlotta; Larsen, Scott D.; Ogg,
AUTHOR (S):
                         Derek; Palazuk, Barbara J.; Bleasdale, John E.
CORPORATE SOURCE:
                         Departments of Medicinal Chemistry and
```

Structural Chemistry, Biovitrum AB, Uppsala,

SE-751 82, Swed.

Journal of Medicinal Chemistry (2002

), 45(9), 1785-1798

CODEN: JMCMAR; ISSN: 0022-2623

American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

SOURCE:

PUBLISHER:

OTHER SOURCE(S): CASREACT 137:2321

Protein tyrosine phosphatases (PTPs) constitute a diverse family of enzymes that, together with protein tyrosine kinases, control the level of intracellular tyrosine phosphorylation, thus regulating many cellular functions. PTP1B neg. regulates insulin signaling, in part, by dephosphorylating key tyrosine residues within the regulatory domain of the β -subunit of the insulin receptor, thereby attenuating receptor kinase activity. Inhibitors of PTP1B would therefore have the potential of prolonging the phosphorylated (activated) state of the insulin receptor and are anticipated to be a novel treatment of the insulin resistance characteristic of type 2 diabetes. We previously reported a series of small mol. weight peptidomimetics as competitive inhibitors of PTP1B, with the most active analogs having Ki values in the low nanomolar range. Furthermore, we confirmed that the O-carboxymethyl salicylic acid moiety is a remarkably effective novel phosphotyrosine mimetic. Because of the low cell permeability of this compound class, it was important to investigate the possibility of replacing one or both of the remaining carboxyl groups while maintaining PTP1B inhibitory activity. The analogs described herein further support the importance of an acidic functionality at both positions of the tyrosine head moiety. An important discovery was the ortho tetrazole analog 29 (Ki = $2.0 \mu M$), which was equipotent to the dicarboxylic acid analog 2 ($Ki = 2.0 \mu M$). Solution of the x-ray cocrystal structure of the ortho tetrazole analog 29 bound to PTP1B revealed that the tetrazole moiety is well-accommodated in the active site and binds in a fashion similar to the ortho carboxylate analog 2 reported previously. This novel monocarboxylic acid analog revealed significantly higher Caco-2 cell permeability as compared to all previous compds. Furthermore, compound 29 exhibited modest enhancement of insulin-stimulated 2-deoxyglucose uptake by L6 myocytes.

IT 221077-60-7P

(ortho tetrazole moiety replacements for carboxyl groups of peptidomimetic inhibitors of protein tyrosine phosphatase 1B can inhibit cellular activity)

RN 221077-60-7 HCAPLUS

CN L-Tyrosinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl-O[2-(hydroxyamino)-2-oxoethyl]-3-(methoxycarbonyl)-N-pentyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

IT 221076-84-2P

(ortho tetrazole moiety replacements for carboxyl groups of peptidomimetic inhibitors of protein tyrosine phosphatase 1B can inhibit cellular activity)

RN 221076-84-2 HCAPLUS

CN L-Tyrosinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl-3-carboxy-O-[2-(hydroxyamino)-2-oxoethyl]-N-pentyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

HO2C
$$H_{N}$$
 H_{N} H_{N}

CC 7-3 (Enzymes)

Section cross-reference(s): 1, 2, 75

IT Diabetes mellitus

(non-insulin-dependent; ortho tetrazole moiety replacements for carboxyl groups of peptidomimetic inhibitors of protein tyrosine phosphatase 1B can inhibit cellular activity)

IT Antidiabetic agents

Enzyme functional sites

Structure-activity relationship

(ortho tetrazole moiety replacements for carboxyl groups of peptidomimetic inhibitors of protein tyrosine phosphatase 1B can inhibit cellular activity)

IT 221077-52-7P 221077-59-4P **221077-60-7P** 432551-05-8P

(ortho tetrazole moiety replacements for carboxyl groups of peptidomimetic inhibitors of protein tyrosine phosphatase 1B can inhibit cellular activity)

221077-49-2P 221077-50-5P IT 221076-84-2P 221077-43-6P 221077-51-6P 221077-53-8P 221077-55-0P 221077-57-2P 292835-93-9P 292835-94-0P 292835-95-1P 402476-71-5P 432550-94-2P 432550-95-3P 432551-01-4P 432550-90-8P 432551-04-7P 432551-09-2P 432551-10-5P 432551-03-6P 432551-11-6P 432551-12-7P 432551-13-8P 432551-14-9P 432551-15-0P

(ortho tetrazole moiety replacements for carboxyl groups of peptidomimetic inhibitors of protein tyrosine phosphatase 1B can inhibit cellular activity)

REFERENCE COUNT:

THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

APPLICATION NO.

DATE

L32 ANSWER 22 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

52

ACCESSION NUMBER:

2002:185126 HCAPLUS

DOCUMENT NUMBER:

136:247485

TITLE:

Preparation of bicyclic pyrrolyl amides as

INVENTOR(S):

glycogen phosphorylase inhibitors Bartlett, Julie B.; Freeman, Sue; Kenny,

Peter; Morley, Andrew; Whittamore, Paul

PATENT ASSIGNEE(S):

Astrazeneca AB, Swed.

SOURCE:

PCT Int. Appl., 141 pp.

CODEN: PIXXD2

KIND DATE

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

WO 2002020530	A1 20020314	WO 2001-SE1880 200 083	
CH, CN, CO, GB, GD, GE, KP, KR, KZ, MN, MW, MX, SI, SK, SL, ZA, ZW, AM, RW: GH, GM, KE,	CR, CU, CZ, DE, GH, GM, HR, HU, LC, LK, LR, LS, MZ, NO, NZ, PH, TJ, TM, TR, TT, AZ, BY, KG, KZ, LS, MW, MZ, SD,	SL, SZ, TZ, UG, ZW, AT, BE,	
	BF, BJ, CF, CG,	GB, GR, IE, IT, LU, MC, NL, CI, CM, GA, GN, GQ, GW, ML,	
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AU 2001082833	A5 20020322	AU 2001-82833 200 083	
EP 1317459	A1 20030611	EP 2001-961577 200 083	
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AT 263772	E	20040415	AT	2001-961577		2001		
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EE 200300083	Α	20041215	EE	2003-83		2001		
ZA 2003001013	A	20040505	71	< 2003-1013		0831		
ZA 2003001013	A	20040303	ЦA	2003-1013		2003 0205		
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						2003 0210		
NO 2003001024	Α	20030305	NO	< 2003-1024				
						2003 0305		
BG 107624	Α	20040130	BG	< 2003-107624				
						2003 0310		
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PRIORITY APPLN. INFO.:			GB	2000-21831	A	2000		
				<		0906		
			WO	2001-SE1880	W	2001		
				<		0831		
OTHER SOURCE(S): GI	MARPAT	136:247485						

USHA SHRESTHA EIC 1600 REM 1A64

I

ΙI

AB Title compds. I [R1 = H, halo, NO2, CN , OH, (un) substituted alkyl, alkenyl, etc.; R2 = H, halo, NO2, CH2F, CHF2, CF3, amino, alkyl, alkenyl, alkoxy, etc.; R3 = H, alkyl; -X-Y-Z- is selected from -S-CR4=CR5-, -CR4=CR5-S-, -O-CR4=CR5-, -CR4=CR5-O-, -N=CR4-S-, -S-CR4=N-, -NR3-CR4=CR5- and -CR4=CR5-NR3- wherein R4 and R5 = independently H, halo, CN, alkyl, ureido, NO2, etc.; n = 0-4] or a pharmaceutically acceptable salt or an in vivo hydrolyzable ester thereof were prepared possessing glycogen phosphorylase inhibitory activity (no data). Thus, II was prepared by amidation of 5-carboxy-2,3-dichloro-4H-thieno[3,2-b]pyrrole with 2-phenoxyethylamine. As glycogen phosphorylase inhibitors, I have value in the treatment of disease states associated with increased glycogen phosphorylase activity, e.g., type 2 diabetes. Pharmaceutical compns. containing I are described. 403859-73-4P 403859-74-5P 403859-76-7P IT

(target compound; preparation of thienopyrrolyl amides as glycogen phosphorylase inhibitors)

RN 403859-73-4 HCAPLUS

CN 4H-Thieno[3,2-b]pyrrole-5-carboxamide, 2,3-dichloro-N-[2-[2-[2-(methylamino)-2-oxoethoxy]phenyl]ethyl]- (9CI) (CA INDEX NAME)

RN 403859-74-5 HCAPLUS

CN 4H-Thieno[3,2-b]pyrrole-5-carboxamide, 2,3-dichloro-N-[2-[2-[2-(dimethylamino)-2-oxoethoxy]phenyl]ethyl]- (9CI) (CA INDEX NAME)

RN 403859-76-7 HCAPLUS

403859-59-6P

CN 4H-Thieno[3,2-b]pyrrole-5-carboxamide, 2,3-dichloro-N-[2-[2-[2-oxo-2-[(phenylmethyl)amino]ethoxy]phenyl]ethyl]- (9CI) (CA INDEX NAME)

IC ICM C07D495-04 ICS C07D491-04; C07D513-04; C07D487-04; A61K031-407; A61P003-10; A61P009-10

CC 27-10 (Heterocyclic Compounds (One Hetero Atom))

403859-60-9P

Section cross-reference(s): 1, 34, 63 IT 403858-52-6P 403858-53-7P 403858-54-8P 403858-51-5P 403858-55-9P 403858-56-0P 403858-57-1P 403858-58-2P 403858-59-3P 403858-60-6P 403858-61-7P 403858-62-8P 403858-63-9P 403858-64-0P 403858-65-1P 403858-66-2P 403858-67-3P 403858-68-4P 403858-69-5P 403858-70-8P 403858-72-0P 403858-71-9P 403858-73-1P 403858-74-2P 403858-75-3P 403858-76-4P 403858-77-5P 403858-78-6P 403858-79-7P 403858-80-0P 403858-81-1P 403858-82-2P 403858-83-3P 403858-84-4P 403858-85-5P 403858-86-6P 403858-87-7P 403858-88-8P 403858-89-9P 403858-90-2P 403858-91-3P 403858-92-4P 403858-93-5P 403858-94-6P 403858-96-8P 403858-97-9P 403858-95-7P 403858-98-0P 403858-99-1P 403859-00-7P 403859-01-8P 403859-02-9P 403859-03-0P 403859-04-1P 403859-05-2P 403859-06-3P 403859-08-5P 403859-09-6P 403859-07-4P 403859-10-9P 403859-11-0P 403859-12-1P 403859-13-2P 403859-14-3P 403859-15-4P 403859-16-5P 403859-17-6P 403859-18-7P 403859-19-8P 403859-20-1P 403859-21-2P 403859-22-3P 403859-23-4P 403859-24-5P 403859-25-6P 403859-26-7P 403859-30-3P 403859-27-8P 403859-28-9P 403859-29-0P 403859-31-4P 403859-32-5P 403859-33-6P 403859-34-7P 403859-35-8P 403859-36-9P 403859-37-0P 403859-38-1P 403859-39-2P 403859-40-5P 403859-41-6P 403859-42-7P 403859-43-8P 403859-44-9P 403859-45-0P 403859-46-1P 403859-47-2P 403859-48-3P 403859-49-4P 403859-50-7P 403859-51-8P 403859-52-9P 403859-53-0P 403859-54-1P 403859-55-2P 403859-56-3P 403859-57-4P 403859-58-5P

403859-62-1P

403859-61-0P

91

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     403859-63-2P
     403859-67-6P 403859-68-7P
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     403859-74-5P 403859-75-6P 403859-76-7P
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                                     403860-02-6P
     403860-05-9P
                     403860-06-0P
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                                     403860-71-9P
     403860-69-5P
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     403860-73-1P
                     403860-74-2P
                                     403860-75-3P
                                                      403860-76-4P
     403860-78-6P 403860-79-7P
                                    403860-80-0P
        (target compound; preparation of thienopyrrolyl amides as glycogen
        phosphorylase inhibitors)
                                 THERE ARE 6 CITED REFERENCES AVAILABLE
REFERENCE COUNT:
                           6
                                 FOR THIS RECORD. ALL CITATIONS AVAILABLE
                                 IN THE RE FORMAT
L32 ANSWER 23 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
                          2002:185062 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                           136:232548
TITLE:
                           Preparation of \gamma-keto acid dipeptides as
                           inhibitors of caspase-3
INVENTOR(S):
                          Han, Yongxin; Giroux, Andre; Grimm, Erich L.;
                          Aspiotis, Renee; Black, Cameron
PATENT ASSIGNEE(S):
                          Merck Frosst Canada & Co., Can.
SOURCE:
                           PCT Int. Appl., 99 pp.
                           CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
                          English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                          KIND
                                  DATE
                                               APPLICATION NO.
                                                                        DATE
                                                ------
     WO 2002020465
                                  20020314 WO 2001-CA1272
                          A2
                                                                         2001
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             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
             CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI,
              SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG CA 2421172 AA20020314 CA 2001-2421172 2001 0906 <--AU 2001093533 **A**5 20020322 AU 2001-93533 2001 0906

2001 0906

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< - -
     EP 1317414
                           A2
                                 20030611
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                                                                      2001
                                                                      0906
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                                              JP 2002-525088
                                 20040715
     JP 2004521080
                           T2
                                                                      2001
                                                                      0906
                                                 < - -
                           A1
     US 2002165230
                                 20021107 · US 2001-948244
                                                                      2001
                                                                      0907
                                                 < - -
     US 6525025
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PRIORITY APPLN. INFO.:
                                              US 2000-231019P
                                                                       2000
                                                                       0908
                                                 < - -
                                              WO 2001-CA1272
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OTHER SOURCE(S): MARPAT 136:232548

γ-Keto acid dipeptides RCR12CONHCR2R3CONHCH(CH2CO2H)COCH2-O-W-Z [W = a bond, CH2, CO or COCH2; Z = H, (un)substituted alkyl, cycloalkyl or a benzofused analog, Ph, naphthyl or a 5- to 10-membered mono- or bicyclic, aromatic or non-aromatic ring, or a benzofused analog, containing 1-3 heteroatoms selected from O, S and N; R = (un)substituted alkoxyphenyl; R1 = H, halo, OH, alkyl or alkoxy optionally substituted by oxo or 1-3 halo groups; R2 = H, Ph, naphthyl, (un) substituted (cyclo) alkyl; R3 = H or R2R3 represent a 4-7 membered ring optionally containing one heteroatom selected from O, S and N] were prepared as inhibitors of caspase-3. dimethoxyphenyl) acetyl] amino] -3-methylbutanoyl] amino] -4oxopentanoic acid was prepared by the solid phase method by loading (S)-FmocNHCH(CH2CO2Bu-t)COCH2Br (Fmoc = fluorenylmethoxycarbonyl) (preparation described) onto a solid support using the technol. described by Webb et al. (1992).

IT 403499-31-0P

100

(preparation of γ -keto acid dipeptides as inhibitors of caspase-3)

RN 403499-31-0 HCAPLUS

CN 1-Naphthalenecarboxylic acid, (3S)-4-carboxy-3-[[(2S)-2-[[[2-[2-[5-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]pentyl]amino]-2-oxoethoxy]-5-(3-methyl-1,2,4-oxadiazol-5-yl)phenyl]acetyl]amino]-3-methyl-1-oxobutyl]amino]-2-oxobutyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

IT 403499-96-7P 403499-97-8P

(preparation of γ -keto acid dipeptides as inhibitors of caspase-3)

RN 403499-96-7 HCAPLUS

CN Benzeneacetic acid, 2-[2-[[5-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]pentyl]amino]-2-oxoethoxy]-5-(3-methyl-1,2,4-oxadiazol-5-yl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

RN 403499-97-8 HCAPLUS

CN Benzeneacetic acid, 2-[2-[[5-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]pentyl]amino]-2-oxoethoxy]-5-(3-methyl-1,2,4-oxadiazol-5-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

IC ICM C07C237-22

ICS A61K031-16; A61P031-18; C07D413-12; C07D241-44; C07D239-34; C07D307-86

CC 34-3 (Amino Acids, Peptides, and Proteins) Section cross-reference(s): 1, 7

IT Autoimmune disease

(insulin-dependent **diabetes** mellitus; preparation of γ -keto acid dipeptides as inhibitors of caspase-3)

IT Diabetes mellitus

(insulin-dependent; preparation of γ -keto acid dipeptides as

inhibitors of caspase-3)

3 :

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403499-16-1P
                 403499-17-2P
                                 403499-18-3P 403499-19-4P
    403499-20-7P 403499-21-8P
                                 403499-22-9P 403499-23-0P
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                                 403499-78-5P
                                               403499-79-6P
    403499-80-9P
                  403499-81-0P 403499-82-1P 403499-83-2P
       (preparation of \gamma-keto acid dipeptides as inhibitors of
       caspase-3)
IT
    116296-30-1P
                  294860-44-9P
                                 294860-95-0P
                                               294860-96-1P
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    403499-86-5P
                  403499-87-6P
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    403499-90-1P 403499-91-2P
                                 403499-94-5P 403499-95-6P
    403499-96-7P 403499-97-8P
        (preparation of \gamma-keto acid dipeptides as inhibitors of
       caspase-3)
L32 ANSWER 24 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
                       2001:704703 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                       135:257231
TITLE:
                       Preparation of catechol propionic acid
                       derivatives as peroxisome
                       proliferator-activated receptor (PPAR) \alpha
                       and \gamma agonists
                       Kadota, Hidetoshi; Fukazawa, Nobuyuki;
INVENTOR(S):
                       Maruyama, Kyoko; Nakao, Toshifumi; Asada,
                       Noriaki; Takebayashi, Nozomi; Kibayashi,
                       Kenji; Uda, Hideyuki; Morikawa, Maki
PATENT ASSIGNEE(S):
                       Mitsui Chemicals Inc., Japan
SOURCE:
                       Jpn. Kokai Tokkyo Koho, 21 pp.
                       CODEN: JKXXAF
DOCUMENT TYPE:
                       Patent
                       Japanese
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
    PATENT NO.
                       KIND
                              DATE
                                          APPLICATION NO.
                                                                DATE
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    JP 2001261612
                    A2
                              20010926
                                          JP 2000-79220
                                                                2000
                                                                0322
PRIORITY APPLN. INFO.:
                                          JP 2000-79220
                                                                2000
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OTHER SOURCE(S):
                       MARPAT 135:257231
GI
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ΙI

$$R^{2}$$
 OR^{4}
 R^{1}
 N
 N

Me O OH OET

AB The title compds. I [R1 = alkyl, etc.; R2 = H, alkoxy, etc.; R3 = H, alkyl, etc.; R4 = H, alkyl, etc.; X = (un)substituted Ph, etc.] are prepared The PPAR α and γ agonist activities of the title compound II were demonstrated; II at 100 mg/kg gave 16% blood sugar decrease in STZ mice.

IT 362012-80-4P

(preparation of catechol propionic acid derivs. as peroxisome proliferator-activated receptor α and γ agonists)

RN 362012-80-4 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-methoxy-3-[2-oxo-2-[[[4-(trifluoromethyl)phenyl]methyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{OEt} \\ \text{HO}_2\text{C}-\text{CH}-\text{CH}_2 \\ \\ \text{O} \\ \\ \text{CH}_2-\text{NH}-\text{C}-\text{CH}_2-\text{O} \\ \\ \text{OMe} \end{array}$$

IT 362012-94-0P

(preparation of catechol propionic acid derivs. as peroxisome proliferator-activated receptor α and γ agonists)

RN 362012-94-0 HCAPLUS

CN Benzenepropanoic acid, α-ethoxy-4-methoxy-3-[2-oxo-2-[[[4-(trifluoromethyl)phenyl]methyl]amino]ethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

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OEt
         Eto-C-CH-CH2
CH2-NH-C-
         -CH2-
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IC ICM C07C059-13

ICS A61K031-192; A61K031-195; A61K031-216; A61K031-275; A61K031-381; A61K031-423; A61P001-00; A61P001-04; A61P001-16;

A61P003-06; A61P003-10; A61P007-00; A61P009-10; A61P011-00;

A61P011-06; A61P029-00; A61P031-06; A61P031-18; A61P035-00

CC 28-6 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1, 25

ST PPAR agonist antidiabetic catechol propionate prepn; benzoxazolylaminoethoxyphenylpropanoic acid prepn PPAR agonist antidiabetic

TT Intestine, disease

(Crohn's; preparation and effect of catechol propionic acid derivs. with peroxisome proliferator-activated receptor agonist activity)

ΙT Bronchi

> (bronchitis; preparation and effect of catechol propionic acid derivs. with peroxisome proliferator-activated receptor agonist activity)

Allergy inhibitors IT

Antiasthmatics

Antidiabetic agents

Hypolipemic agents

(catechol propionic acid derivs. with peroxisome proliferator-activated receptor agonist activity)

TΤ Malaria

> (cerebral; preparation and effect of catechol propionic acid derivs. with **peroxisome** proliferator-activated receptor agonist activity)

Brain, disease IT

(malaria; preparation and effect of catechol propionic acid derivs. with peroxisome proliferator-activated receptor agonist activity)

Arteriosclerosis IT

Arthritis

Autoimmune disease

Hepatitis

Multiple sclerosis

Osteoarthritis

(preparation and effect of catechol propionic acid derivs. with peroxisome proliferator-activated receptor agonist activity)

IT Peroxisome proliferator-activated receptors

(preparation of catechol propionic acid derivs. as **peroxisome** proliferator-activated receptor α and γ agonists)

IT Shock (circulatory collapse)

(septic; preparation and effect of catechol propionic acid derivs.

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with peroxisome proliferator-activated receptor
        agonist activity)
     Intestine, disease
TT
        (ulcerative colitis; preparation and effect of catechol propionic
        acid derivs. with peroxisome proliferator-activated
        receptor agonist activity)
IT
     Infection
        (viral; preparation and effect of catechol propionic acid derivs.
        with peroxisome proliferator-activated receptor
        agonist activity)
IT
     362012-74-6P
                   362012-75-7P
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     362012-78-0P
                   362012-79-1P 362012-80-4P 362012-81-5P
     362012-82-6P 362012-83-7P
        (preparation of catechol propionic acid derivs. as
        peroxisome proliferator-activated receptor \alpha and
       γ agonists)
     402-49-3, 4-Trifluoromethylbenzyl bromide 455-24-3,
IT
     4-Trifluoromethylbenzoic acid 817-95-8, Ethyl ethoxyacetate
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     362013-01-2
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       peroxisome proliferator-activated receptor \alpha and
       γ agonists)
IT
     362012-84-8P 362012-85-9P 362012-86-0P 362012-87-1P
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     362013-00-1P
        (preparation of catechol propionic acid derivs. as
        peroxisome proliferator-activated receptor \alpha and
       γ agonists)
L32 ANSWER 25 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
                      2001:152692 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                        134:193424
                        Preparation of oxazoloisoindole derivatives
TITLE:
                         and analogs as remedies for diabetes
                         (or complications thereof) and obesity
                         Nagase, Toshio; Iino, Tomoharu; Sato,
INVENTOR (S):
                         Yoshiyuki; Nishimura, Teruyuki; Eiki, Jun-ichi
PATENT ASSIGNEE(S):
                         Banyu Pharmaceutical Co., Ltd., Japan
                         PCT Int. Appl., 322 pp.
SOURCE:
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         Japanese
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                        KIND
                               DATE
                                          APPLICATION NO.
                                                                  DATE
     WO 2001014386
                        A1
                               20010301
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OTHER SOURCE(S):

MARPAT 134:193424

GI

37

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AB The title compds. I [R represents azido, etc.; R1 and R2 are the same or different and each represents hydrogen, etc.; R3 and R4 are the same or different and each represents hydrogen, etc.; X1 represents oxygen, etc.; X2 represents oxygen, etc.; Y represents oxygen, etc.; and Z represents fused aryl, etc.] are prepared The title compound I [R1 = R2 = R4 = H; R3 = isopropyl; Z = phenyl; R = phenyl] at 30 mg/kg significantly increased the concentration of GLP-1 in plasma in rats. Formulations are given.

IT 327599-44-0P

(preparation of oxazoloisoindole derivs. and analogs as remedies for diabetes (or complications thereof) and obesity)

RN 327599-44-0 HCAPLUS

CN Acetamide, 2-[2-butyl-4-[2,3-dihydro-3-(1-methylethyl)-2,5-dioxooxazolo[2,3-a]isoindol-9b(5H)-yl]phenoxy]-N-propyl- (9CI) (CA INDEX NAME)

IC ICM C07D491-048

ICS C07D491-147; C07D487-04; C07D471-14; C07D487-14; C07D513-04; C07D513-14; C07D498-14; C07D498-04; A61K031-424; A61K031-437; A61K031-4188; A61K031-4985; A61K031-407; A61K031-519; A61K031-5377; A61K031-4439; A61K031-429; A61K031-5025; A61P003-10

CC 28-6 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1, 34, 63

ST oxazoloisoindole prepn diabetes obesity remedy

IT Diabetes mellitus

Obesity

ΙT

(preparation of oxazoloisoindole derivs. and analogs as remedies for diabetes (or complications thereof) and obesity)

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(preparation of oxazoloisoindole derivs. and analogs as remedies for diabetes (or complications thereof) and obesity)

IT 89750-14-1, Glucagon-like peptide I

(preparation of oxazoloisoindole derivs. and analogs as remedies for diabetes (or complications thereof) and obesity)

TT 75-16-1, Methylmagnesium bromide 85-52-9, 2-Benzoylbenzoic acid 88-99-3, Phthalic acid, reactions 578-57-4, 2-Bromoanisole 1151-15-1, 2-(4-Methoxybenzoyl)benzoic acid 6638-79-5, N,O-Dimethylhydroxylamine hydrochloride 7146-15-8, D-Valine methyl ester hydrochloride 7664-41-7, Ammonia, reactions 16721-80-5, Sodium hydrogen sulfide 22838-58-0, N-tert-Butoxycarbonyl-D-valine

(preparation of oxazoloisoindole derivs. and analogs as remedies for diabetes (or complications thereof) and obesity)

IT 1151-04-8P 70717-76-9P, N-tert-Butoxycarbonyl-D-valine amide 190260-92-5P 327600-47-5P 327600-48-6P 327600-49-7P 327600-50-0P

(preparation of oxazoloisoindole derivs. and analogs as remedies for diabetes (or complications thereof) and obesity)

REFERENCE COUNT:

THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 26 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:742095 HCAPLUS

DOCUMENT NUMBER: 133:296438

TITLE: Preparation of substituted fused imidazole

derivatives as hypoglycemics

INVENTOR(S): Fujita, Takashi; Wada, Kunio; Oguchi, Minoru;

Honma, Hidehito; Fujiwara, Toshihiko

PATENT ASSIGNEE(S): Sankyo Company, Ltd., Japan

SOURCE: PCT Int. Appl., 274 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000061582	A1	20001019	WO 2000-JP2217	2000

0406

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RU, TR, US, ZA

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,

MC, NL, PT, SE

JP 2000351777 A2 20001219 JP 2000-105985

2000 0407

PRIORITY APPLN. INFO.:

JP 1999-101369

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1999

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OTHER SOURCE(S):

MARPAT 133:296438

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$$R^4$$
 R^5
 R^2
 CH_2
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 CH_2
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 $R^$

$$\begin{array}{c} \text{Me} \\ \text{Me} \\ \text{HO} \\ \text{Me} \\ \text{O} \\ \text{CH}_2\text{O} \\ \text{N} \\ \text{CH}_2\text{O} \\ \text{N} \\ \text{II} \\ \text{O} \\ \text{N} \\ \text{N}$$

AB Compds. represented by general formula (I) and salts and esters thereof [wherein R1 is hydrogen, C1-6 alkyl, (un)substituted C6-10 aryl or C7-16 aralkyl, HO, (un)substituted acyloxy, C1-6 alkoxy, (un)substituted NH2, etc.; R2 is hydrogen, C1-6 alkyl, or (un)substituted C7-16 aralkyl; R4, R4, or R5 is each hydrogen, C1-6 alkyl, or C1-6 alkoxy; R6 is hydrogen, C1-6 alkyl, (un)substituted C6-10 aryl or C7-16 aralkyl; Q and Y are each oxygen or sulfur; X is CH2, CO, CH(OR9), or C(:NOR10); wherein R9 or R10 is hydrogen, (un)substituted C1-6 alkyl, C7-16 aralkyl, or acyl; Z is CH or nitrogen; n and q are each 1 to 5; and A is a group represented by general formula Q1, Q2, Q3, or (CH2)m CH(CO2H)-BR7; wherein m is 0 to 8; X1 is oxygen or sulfur; B is oxygen, sulfur, or (un)substituted NH; and R7 is hydrogen, C1-6 alkyl, (un)substituted C6-10 aryl or C7-16 aralkyl, or haloalkyl]

are prepared These compds. are useful as insulin resistance improvers, hypoglycemics, antiinflammatory agents, immunomodulators, aldose reductase inhibitors, 5-lipoxygenase inhibitors, lipid peroxide-formation inhibitors, peroxisome proliferator-activated receptor (PPAR) activators, anti-osteoporosis agents, leukotriene antagonists, promoters of fat cell formation, cancer cell-proliferation inhibitors, or calcium antagonists. They are useful for the prevention or treatment of diabetes, hyperlipidemia, obesity, glucose tolerance insufficiency, hypertension, fatty liver, diabetes complication, arteriosclerosis, gestational diabetes, polycystic ovarian syndrome, cardiovascular diseases, cell damages caused by atherosclerosis or ischemic heart diseases, gout, osteoarthritis, rheumatic arthritis, allergic diseases, asthma, gastrointestinal ulcer, cachexia, autoimmune diseases, cancer, osteoporosis, or cataract. Thus, N-[2-amino-5-(6-methoxymethoxy-2,5,7,8-tetramethylchroman-2ylmethoxy)phenyl]-N-methylcarbamic acid tert-Bu ester was condensed with 4-(2,4-dioxothiazolin-5-ylmethyl)phenoxyacetic acid using di-Et cyanophosphate and Et3N in THF at room temperature for 30 min, followed by treatment of the product with 4 N HCl/dioxane at room temperature for 5 h gave 5-[4-[6-(6-hydroxy-2,5,7,8tetramethylchroman-2-ylmethoxy)-1-methyl-1H-benzimidazol-2ylmethoxy]benzyl]thiazolidine-2,4-dione hydrochloride (II.HCl). When a feed containing 0.01% II.HCl was fed to mice for 3 days, the blood sugar level was lowered by 66.7% compared to control animal. 300666-05-1P 300666-10-8P 300666-13-1P 300666-14-2P 300666-15-3P 300666-16-4P 300666-17-5P 300666-18-6P 300666-19-7P 300666-20-0P 300666-21-1P 300666-22-2P 300666-27-7P 300666-28-8P 300666-31-3P (preparation of substituted fused imidazole derivs. as therapeutics) 300666-05-1 HCAPLUS Benzenepropanoic acid, 4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-

PAGE 1-A

O Me

t-BuO-C-N

Me

OH2-O

Me

CH2-O

Me

Me

Me

Me

CH2-O

dimethylethoxy) carbonyl] methylamino] phenyl] amino] -2-oxoethoxy] -

 α -(2,2,2-trifluoroethoxy)-, methyl ester (9CI) (CA INDEX

IT

RN CN

NAME)

PAGE 1-B

RN 300666-10-8 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]α-[[(4-fluorophenyl)methyl]thio]-, methyl ester (9CI) (CA
INDEX NAME)

PAGE 1-A

PAGE 1-B

$$\begin{array}{c} \begin{smallmatrix} \mathsf{O} \\ || \\ \mathsf{C-OMe} \\ | \\ \mathsf{-CH}_2-\mathsf{CH-S-CH}_2 \\ \end{array}$$

RN 300666-13-1 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]α-hydroxy-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-14-2 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-<math>\alpha$ -(phenylthio)-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-15-3 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-<math>\alpha$ -[(4-nitrophenyl)thio]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-16-4 HCAPLUS

CN Benzenepropanoic acid, α -(4-cyanophenoxy)-4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-17-5 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]- <math>\alpha-[(4-methylphenyl)thio]-$, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-18-6 HCAPLUS

CN Benzenepropanoic acid, α -[(4-chlorophenyl)thio]-4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-19-7 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-<math>\alpha-[[4-(1,1-dimethylethyl)phenyl]thio]-$, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c} \text{O} \quad \text{Me} \\ \text{t-BuO-C-N} \\ \text{Me} \\ \text{O} \\ \text{CH}_2 - \text{O} \\ \text{Me} \\ \text{Me} \\ \text{O} \\ \text{Me} \\ \text{O} \\ \text{Me} \\ \text{O} \\$$

PAGE 1-B

RN 300666-20-0 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-α-[(4-methoxyphenyl)thio]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-21-1 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-α-ethoxy-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c} \text{Me} \\ \text{t-BuO-C-N} \\ \text{Me} \\ \text{Me} \\ \text{CH}_2 - \text{O} \\ \text{Me} \\ \text{Me} \\ \text{Me} \\ \text{NH-C-CH}_2 - \text{O} \\ \text{Me} \\ \text{Me} \\ \text{NH-C-CH}_2 - \text{O} \\ \text{Me} \\ \text{M$$

PAGE 1-B

RN 300666-22-2 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-

dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]- α -[(4-fluorophenyl)methoxy]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-27-7 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-<math>\alpha$ -phenoxy-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-28-8 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-<math>\alpha-(4-nitrophenoxy)-$, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 300666-31-3 HCAPLUS

CN Benzenepropanoic acid, α-[bis(4-fluorophenyl)methoxy]-4-[2-[[4-[[3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1benzopyran-2-yl]methoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylam ino]phenyl]amino]-2-oxoethoxy]-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

```
C-OMe
C-OMe
- CH<sub>2</sub>-CH-O-CH
```

(activators; preparation of substituted fused imidazole derivs. as therapeutics)

IT Diabetes mellitus

(complications; preparation of substituted fused imidazole derivs. as therapeutics)

IT Pregnancy

Pregnancy

(gestational diabetes mellitus; preparation of substituted fused imidazole derivs. as therapeutics)

IT Diabetes mellitus

Diabetes mellitus

IT Allergy inhibitors

Anti-inflammatory agents

Antiarteriosclerotics

Antiarthritics

Antiasthmatics

Antidiabetic agents

Antihypertensives

Antiobesity agents

Antitumor agents

Antiulcer agents

Autoimmune disease

Cachexia

Cataract

Gout

Hypolipemic agents

Immunomodulators

Osteoarthritis

Osteoporosis

(preparation of substituted fused imidazole derivs. as therapeutics)

IT 62517-34-4P 300666-00-6P 300666-01-7P 300666-02-8P

300666-03-9P 300666-04-0P **300666-05-1P** 300666-06-2P

300666-07-3P 300666-08-4P 300666-09-5P **300666-10-8P**

300666-11-9P 300666-12-0P **300666-13-1P**

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300666-14-2P 300666-15-3P 300666-16-4P
300666-17-5P 300666-18-6P 300666-19-7P
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300666-23-3P
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300666-34-6P
               300666-39-1P
300666-38-0P
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(preparation of substituted fused imidazole derivs. as therapeutics)
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L32 ANSWER 27 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2000:725618 HCAPLUS

DOCUMENT NUMBER:

133:281783

TITLE:

 ${\tt Preparation \ of \ benzimidazolylalkoxyphenylalkan}$

APPLICATION NO.

DATE

oic acid derivatives for the treatment of

diabetes and other diseases

INVENTOR(S):

Fujita, Takashi; Wada, Kunio; Oguchi, Minoru;

Honma, Hidehito; Fujiwara, Toshihiko;

Iwabuchi, Haruo

PATENT ASSIGNEE(S):

Sankyo Company, Ltd., Japan

SOURCE:

PCT Int. Appl., 235 pp.

DATE

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

KIND

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

WO 2000059889	A1 20001012	WO 2000-JP2215	2000 0406
RU, TR, US,	ZA	<pre>< IL, IN, KR, MX, NO, NZ, FI, FR, GB, GR, IE, IT,</pre>	•
MC, NL, PT, CA 2369871	SE	CA 2000-2369871	2000
JP 2001097955	A2 20010410	< JP 2000-104701	0406 2000
EP 1167357	A1 20020102	< EP 2000-915361	0406
		<	2000 0406
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BR 2000009593	A 20020618	BR 2000-9593	

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					<		0400
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				UP	1999-215141	A	1999
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	1						, 2001
							1005
					<		

MARPAT 133:281783

OTHER SOURCE(S):

GI

AB The title compds. I [R1 is alkyl or the like; R2 is hydrogen or the like; R3 is hydrogen or the like; A is CH or the like; B is oxygen or the like; W1 is C1-C8 alkylene; W2 is a single bond or C1-C8 alkylene; X is hydrogen or the like; Y is oxygen or the like; and Z1 is alkoxy or the like] are prepared Feed containing 0.01% 3-[4-[6-(3,5-di-tert-butyl-4-hydroxyphenylthio)-1-methyl-1H-benzimidazol-2-ylmethoxy]phenyl]-2-(4-fluorobenzyloxy)propionic acid decreased blood sugar in diabetic mice by 40.8%. Formulations are given.

IT 299175-84-1P 299175-86-3P 299175-96-5P 299176-05-9P

(preparation of benzimidazolylalkoxyphenylalkanoic acid derivs. for treatment of **diabetes** and other diseases)

RN 299175-84-1 HCAPLUS

CN Benzenepropanoic acid, 4-[2-[[2-[[(1,1-dimethylethoxy)carbonyl]methylamino]-4-(4-tricyclo[3.3.1.13,7]dec-1-ylphenoxy)phenyl]amino]-2-oxoethoxy]-α-[(4-fluorophenyl)methoxy]-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

Me O

N-C-OBu-t

CH2-O-CH-CH2

O-CH2-C-NH

PAGE 1-B



RN 299175-86-3 HCAPLUS

CN Benzenepropanoic acid, $4-[2-[[4-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethoxy]-<math>\alpha$ -[(4-fluorophenyl)methoxy]-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

F
$$MeO-C$$
 $O-CH_2-C-NH$ $CH_2-O-CH-CH_2$ $C-BuO-C-N$ $O-CH_2-C-NH$ $O-CH_2-C-NH$ $O-CH_2-C-NH$ $O-CH_2-C-NH$ $O-CH_2-C-NH$ $O-CH_2-C-NH$ $O-CH_2-C-NH$

PAGE 1-B

RN 299175-96-5 HCAPLUS

CN L-Tyrosine, N-(2-benzoylphenyl)-O-[2-[[4-[4-[[(1,1-dimethylethoxy)carbonyl]amino]-3,5-dimethylphenoxy]-2-[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl]amino]-2-oxoethyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

RN 299176-05-9 HCAPLUS
CN Benzenepropanoic acid, 4-[2-[[2-[[(1,1-dimethylethoxy)carbonyl]methylamino]-4-hydroxyphenyl]amino]-2-

dimethylethoxy)carbonyl]methylamino]-4-hydroxyphenyl]amino]-2-oxoethoxy]- α -(methylthio)-, ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & \text{OH} \\ \hline O & \text{SMe} \\ \hline EtO-C-CH-CH_2 & O-CH_2-C-NH \\ \hline & N-C-OBu-t \\ \hline & Me & O \end{array}$$

IC ICM C07D235-16

ICS C07H017-02; C07D471-04; C07D401-12; A61K031-4184; A61K031-7056; A61K031-437; A61K031-4439; A61P043-00;

A61P003-10; A61P025-00; A61P027-12; A61P009-10; A61P003-06;

A61P009-12; A61P029-00; A61P011-06; A61P035-00

CC 28-9 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1, 63

ST benzimidazolylalkoxyphenylalkanoate prepn antidiabetic; antidiabetic benzimidazolylalkoxyphenylalkanoate prepn;

disease treatment benzimidazolylalkoxyphenylalkanoate prepn

IT Allergy inhibitors

Anti-inflammatory agents

Antiasthmatics

Antidiabetic agents

Antihypertensives

Antitumor agents

Antiulcer agents

Hypolipemic agents

Immunomodulators

(benzimidazolylalkoxyphenylalkanoic acid derivs.)

IT Diabetes mellitus

(complications; preparation and effect of

```
benzimidazolylalkoxyphenylalkanoic acid derivs.)
IT
    Pregnancy
        (diabetes; preparation and effect of
       benzimidazolylalkoxyphenylalkanoic acid derivs.)
IT
    Kidney, disease
        (diabetic nephropathy; preparation and effect of
       benzimidazolylalkoxyphenylalkanoic acid derivs.)
IT
    Cardiovascular system
        (disease, diabetic; preparation and effect of
       benzimidazolylalkoxyphenylalkanoic acid derivs.)
IT
    Nerve, disease
        (neuropathy, diabetes related; preparation and effect of
       benzimidazolylalkoxyphenylalkanoic acid derivs.)
IT
    Peroxisome proliferator-activated receptors
        (preparation of benzimidazolylalkoxyphenylalkanoic acid derivs. with
       effect on peroxisome proliferator-activated
       receptors)
IT
     299176-23-1P
        (preparation of benzimidazolylalkoxyphenylalkanoic acid derivs. for
        treatment of diabetes and other diseases)
IT
     299175-35-2P
        (preparation of benzimidazolylalkoxyphenylalkanoic acid derivs. for
        treatment of diabetes and other diseases)
IT
     299175-36-3P
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    299176-26-4P
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     299176-30-0P
        (preparation of benzimidazolylalkoxyphenylalkanoic acid derivs. for
        treatment of diabetes and other diseases)
IT
     67-64-1, Acetone, reactions
                                   74-88-4, Methyl iodide, reactions
     100-51-6, Benzenemethanol, reactions
                                            107-30-2, Methoxymethyl
     chloride
               108-24-7, Acetic anhydride
                                            306-23-0
                                                        459-46-1,
     4-Fluorobenzyl bromide
                             950-59-4
                                         1548-13-6,
     4-Trifluoromethylphenylisocyanate
                                         3096-70-6,
     4-Amino-3,5-dimethylphenol 3580-38-9, 2-Benzoylcyclohexanone
     5188-07-8, Sodium thiomethoxide
                                       5292-43-3, tert-Butyl
    bromoacetate
                    5437-45-6, Benzyl bromoacetate
                                                     7143-01-3,
    Methanesulfonic anhydride
                                 24424-99-5, Di-tert-butyl dicarbonate
     26386-88-9, Diphenylazidophosphate
                                          29799-07-3,
                            51095-47-7, Methyl 4-hydroxyphenyllactate
     4-(1-Adamantyl)phenol
     68697-61-0, Tyrosine methyl ester hydrochloride
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     150556-70-0, 5-(4-Acetoxybenzyl)thiazolidine-2,4-dione
     179087-93-5
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                  299176-22-0
        (preparation of benzimidazolylalkoxyphenylalkanoic acid derivs. for
        treatment of diabetes and other diseases)
ΙT
                    197299-03-9P
                                   223133-10-6P
                                                  223133-16-2P
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```

(preparation of benzimidazolylalkoxyphenylalkanoic acid derivs. for

treatment of diabetes and other diseases)

3

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 28 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2000:53564 HCAPLUS

DOCUMENT NUMBER:

132:107781

TITLE:

Preparation of phenoxyacetic acid derivatives

as selective stimulants of β 3-adrenergic

receptor and medicinal compositions containing

the same

INVENTOR(S):

Tanaka, Nobuyuki; Tamai, Tetsuro; Mukaiyama, Harunobu; Hirabayashi, Akihito; Muranaka, Hideyuki; Sato, Masaaki; Akahanae, Masuo

Kissei Pharmaceutical Co., Ltd., Japan PCT Int. Appl., 76 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT ASSIGNEE(S):

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 2000002846	A1 20000120	WO 1999-JP3611	1999 0705
CU, CZ, DE, ID, IL, IN, LU, LV, MD, SD, SE, SG,	DK, EE, ES, FI, IS, JP, KE, KG, MG, MK, MN, MW, SI, SK, SL, TJ,	BB, BG, BR, BY, CA, CH GB, GD, GE, GH, GM, HR KR, KZ, LC, LK, LR, LS MX, NO, NZ, PL, PT, RC TM, TR, TT, UA, UG, US	t, HU, 5, LT, 0, RU,
DE, DK, ES, BF, BJ, CF,	LS, MW, SD, SL, FI, FR, GB, GR, CG, CI, CM, GA,	SZ, UG, ZW, AT, BE, CH IE, IT, LU, MC, NL, PT GN, GW, ML, MR, NE, SN	S, SE,
CA 2336853	AA 20000120	CA 1999-2336853	1999 0705
AU 9943973	A1 20000201	< AU 1999-43973	1999 0705
AU 771200 BR 9911871	B2 20040318 A 20010327	< BR 1999-11871	1999
EP 1095932	A1 20010502	< EP 1999-926928	0705 1999

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OTHER SOURCE(S):	MARPAT 13	12 - 107791	<u> </u>	
OTHER SOURCE(S):	PARCAL IS	,		

USHA SHRESTHA EIC 1600 REM 1A64

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HO Me H
$$R^3$$
 R^2 R^2 R^3 R^4 R^4

AB Novel 4-[2-(((1S,2R)-2-(4-hydroxyphenyl)-2-hydroxy-2methylethyl)amino)ethyl]phenoxyacetic acid derivs. represented by general formula [I; wherein R1 is hydroxyl, lower alkoxy, aralkoxy, NH2, mono- or di(lower alkyl)amino; one of R2 and R3 is hydrogen, halogeno, lower alkyl, or lower alkoxy, and the other thereof is hydrogen; and R4 is halogeno, lower alkyl, lower haloalkyl, OH, lower alkoxy, aralkoxy, cyano, NO2, NH2, mono- or di(lower alkyl) amino, CONH2, mono- or di(lower alkyl)carbamoyl, NH2, or alkanoylamino] and pharmacol. acceptable salts thereof are prepared These compds. exhibit more potent stimulating effect for β 3-adrenergic receptor than that for β 1 and/or B2-adrenergic receptor and are reduced in side effects due to the stimulating effect for $\beta1$ and/or $\beta2$ -adrenergic receptor. They are useful as preventive or therapeutic agents for obesity, hyperglycemia, diseases due to hyperkinesia of intestine, pollakiuria, urinary incontinence, depression, cholelithiasis or diseases due to hyperkinesia of biliary tract. Thus, a suspension of 475 mg (1R,2R)-2-amino-1-(4-hydroxyphenyl)propan-1-ol, 520 mg Et 2-[2-bromo-4-(2-bromoethyl)phenoxy] acetate, and 1.42 g mol. sieve 4A in 4.7 mL DMF was stirred at room temperature for 2 days to give, after purification by medium pressure liquid chromatog. using aminopropylated silica gel, 356 mg I (R2 = Br, R3 = R4 = H, R1 = OEt) . I.HCl (R1 = OEt, R2 = H, R3 = R4 = Cl) in vitro showed ED50 of 7.2 + 10-10, 6.8 + 10-5, and 6.1 + 10-6M for stimulating $\beta3$ -, $\beta1$ -, and $\beta2$ -adrenergic receptors in male ferret bladder, atrium of rat heart, and rat uterus, resp.

IT 255733-87-0P

(preparation of phenoxyacetic acid derivs. as selective stimulants of $\beta 3\text{-adrenergic}$ receptor for treatment of diseases)

RN 255733-87-0 HCAPLUS

CN Acetamide, 2-[2-(dimethylamino)-4-[2-[[(1S,2R)-2-hydroxy-2-(4-hydroxyphenyl)-1-methylethyl]amino]ethyl]phenoxy]-N,N-dimethyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 255734-82-8P, 2-[2-(Dimethylamino)-4-(2hydroxyethyl)phenoxy]-N,N-dimethylacetamide 255734-83-9P
, 2-[4-(2-Hydroxyethyl)-2-nitrophenoxy]-N,N-dimethylacetamide
255734-85-1P

(preparation of phenoxyacetic acid derivs. as selective stimulants of $\beta 3$ -adrenergic receptor for treatment of diseases)

RN 255734-82-8 HCAPLUS

CN Acetamide, 2-[2-(dimethylamino)-4-(2-hydroxyethyl)phenoxy]-N,N-dimethyl- (9CI) (CA INDEX NAME)

RN 255734-83-9 HCAPLUS

CN Acetamide, 2-[4-(2-hydroxyethyl)-2-nitrophenoxy]-N,N-dimethyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} CH_2-CH_2-OH \\ \hline \\ Me_2N-C-CH_2-O \\ \hline \\ NO_2 \end{array}$$

RN 255734-85-1 HCAPLUS

CN Acetamide, 2-[2-(dimethylamino)-4-[2-[[(4-methylphenyl)sulfonyl]oxy]ethyl]phenoxy]-N,N-dimethyl- (9CI) (CAINDEX NAME)

Me
$$O - CH_2 - CH_2$$
 $O - CH_2 - C - NMe_2$

IC ICM C07C217-60

CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

Section cross-reference(s): 1

IT Antidepressants

Antidiabetic agents

Antiobesity agents

Calculi, biliary

(preparation of phenoxyacetic acid derivs. as selective stimulants of β 3-adrenergic receptor for treatment of diseases)

IT 255733-69-8P 255733-70-1P 255733-72-3P 255733-73-4P

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    255734-19-1P
        (preparation of phenoxyacetic acid derivs. as selective stimulants
       of β3-adrenergic receptor for treatment of diseases)
    21092-94-4P, 4'-(Benzyloxy)-3'-hydroxyacetophenone
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    2-(3-Bromo-4-hydroxyphenyl)acetic acid ethyl ester
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    50824-04-9P, 4-Bromo-2-(trifluoromethyl)phenol
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    118172-64-8P
                   169247-46-5P, Benzyl 4-bromo-2-
     (trifluoromethyl)phenyl ether
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    255734-22-6P, 2-[4-(2-Bromoacetyl)-2,5-dimethylphenoxy]acetic acid
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     255734-88-4P, N,N-Dimethyl-2-(benzyloxy)-5-(2-
     hydroxyethyl)benzamide 255734-89-5P, N,N-Dimethyl-2-(benzyloxy)-
     5-(2-bromoethyl)benzamide 255734-90-8P, 2-[4-(2-Bromoethyl)-3-
    methoxyphenoxy]acetic acid ethyl ester 255734-91-9P,
     2-[4-(2-Hydroxyethyl)-2-methoxyphenoxy]acetic acid ethyl ester
    255734-93-1P, 2-[2-Bromo-4-(2-bromoethyl)phenoxy]acetic acid ethyl
        (preparation of phenoxyacetic acid derivs. as selective stimulants
       of \beta3-adrenergic receptor for treatment of diseases)
                              THERE ARE 4 CITED REFERENCES AVAILABLE
REFERENCE COUNT:
                               FOR THIS RECORD. ALL CITATIONS AVAILABLE
                               IN THE RE FORMAT
L32 ANSWER 29 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                        1999:184222 HCAPLUS
DOCUMENT NUMBER:
                         130:223585
TITLE:
                        Preparation of substituted phenylalanine
                         derivatives as protein tyrosine phosphatase
                         inhibitors
                         Larsen, Scott D.; May, Paul D.; Bleasdale,
INVENTOR(S):
                         John; Liljebris, Charlotta; Schostarez,
                        Heinrich Josef; Barf, Tjeerd
PATENT ASSIGNEE(S):
                         Pharmacia & Upjohn Company, USA
SOURCE:
                         PCT Int. Appl., 182 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
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LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
	A2 19990311	WO 1998-US17327	1998
		<	0824
CZ, DE, DK, IS, JP, KE, MD, MG, MK, SG, SI, SK, ZW, AM, AZ, RW: GH, GM, KE,	EE, ES, FI, GB, KG, KP, KR, KZ, MN, MW, MX, NO, SL, TJ, TM, TR, BY, KG, KZ, MD, LS, MW, SD, SZ,	BG, BR, BY, CA, CH, CN, GE, GH, GM, HR, HU, ID, LC, LK, LR, LS, LT, LU, NZ, PL, PT, RO, RU, SD, TT, UA, UG, US, UZ, VN, RU, TJ, TM UG, ZW, AT, BE, CH, CY, IT, LU, MC, NL, PT, SE,	IL, LV, SE, YU, DE,
BJ, CF, CG, CA 2298601		GW, ML, MR, NE, SN, TD, CA 1998-2298601	
		<	1998 0824
AU 9892010	A1 19990322	AU 1998-92010	1998 0824
AU 749132 EP 1019364	B2 20020620 A2 20000719	< EP 1998-944476	1998
		<	0824
MC, PT, IE,	SI, LT, LV, FI,		SE,
JP 2001514245	T2 20010911		1998 0824
AT 268750	E 20040615	< AT 1998-944476	1998 0824
PRIORITY APPLN. INFO.:		< US 1997-57730P	P 1997 0828
		< WO 1998-US17327	W 1998 0824
		<	

OTHER SOURCE(S): MARPAT 130:223585

GI

$$Q = -CHN$$

$$R^{7}$$

$$O$$

$$Ph$$

$$HO_{2}C$$

$$O$$

$$O$$

$$CO_{2}H$$

$$HO_{2}C$$

$$O$$

$$O$$

$$CO_{2}H$$

$$III$$

AB The present invention comprises title compds. I and II [G1 = R2, NR8R4; G2 = H, CONHR3, CH2OH, CH:CHR3; R1 = OSO3H, OCH(CO2R5)2, OCH2CO2R5, OCH(CO2R5)CH2CO2R5, O(CO2R5):CHCO2R5, CH2CH(CO2R5)2, CH:C(CO2R5)2, OCH2CONHOH, N(CH2CO2R5)2, OCHFCO2R5; R2 = C1-10alkyl, C3-8 cycloalkyl, C0-6 alkylphenyl each substituted with 0-2 CO2R5 groups or 0-1 CONH2 groups, CHR7NHXR6, group Q; R3 = (un) substituted C1-12 alkyl, C1-4 alkyl-C3-6 cycloalkyl, C2-12 alkenyl, C3-12 alkynyl, (un) substituted C0-10 alkyl(G3)n, CH(CONH2)-C1-12 alkyl; R4 = H, C1-18 alkyl, alkenyl, C0-6 alkyl-G3; R5 = H, C1-10 alkyl, C1-5 alkylphenyl; R6 = C1-10 alkyl, substituted C1-6 alkyl; R7 = H, substituted C1-6 alkyl; R8 = C0-6 alkyl-G3, CHR7CO2R5, CHR7CH2CO2R5, CHR7CONHCH2COR5; G3 = (un) substituted Ph, naphthyl, heterocyclyl; R10 = H, CO2R5, CONHOH, 5-tetrazolyl, F, OCH2CO2R5; R11 = H, Me; X = CO, SO2, CO2; n = 0-3; with provisos] and pharmaceutically acceptable salts thereof, as small mol. weight, non-peptidic inhibitors of protein tyrosine phosphatase 1 (PTP1) which are useful for the treatment and/or prevention of non-insulin dependent diabetes mellitus (NIDDM). Thus, O-alkylation of N-tertbutoxycarbonyltyramine with di-Et chloromalonate, followed by acidic deprotection, amidation with 4-benzoyl-N-tertbutoxycarbonyl-L-phenylalanine, acidic deprotection, and amidation with succinic anhydride, gave desired title compound III (PNU 176073). III showed 60% inhibition of protein tyrosine phosphatase 1B at a concentration of 10 μM.

IT 221076-84-2P

CN

(preparation of substituted phenylalanine derivs. as protein tyrosine phosphatase inhibitors)

RN 221076-84-2 HCAPLUS

L-Tyrosinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl-3-carboxy-O-[2-(hydroxyamino)-2-oxoethyl]-N-pentyl- (9CI) (CA INDEX

NAME)

Absolute stereochemistry.

IT 221077-60-7P

(preparation of substituted phenylalanine derivs. as protein tyrosine phosphatase inhibitors)

RN 221077-60-7 HCAPLUS

CN L-Tyrosinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl-O[2-(hydroxyamino)-2-oxoethyl]-3-(methoxycarbonyl)-N-pentyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

IC ICM C07C235-00

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 1, 7, 63

ST phenylalanine deriv prepn protein tyrosine phosphatase inhibitor; noninsulin dependent **diabetes** mellitus treatment phenylalanine deriv prepn

IT Diabetes mellitus

(non-insulin-dependent; preparation of substituted phenylalanine derivs. as protein tyrosine phosphatase inhibitors)

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        (preparation of substituted phenylalanine derivs. as protein
        tyrosine phosphatase inhibitors)
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        (preparation of substituted phenylalanine derivs. as protein
        tyrosine phosphatase inhibitors)
    ANSWER 30 OF 38
                      HCAPLUS COPYRIGHT 2006 ACS on STN
L32
ACCESSION NUMBER:
                         1999:113706 HCAPLUS
DOCUMENT NUMBER:
                         130:168661
TITLE:
                         Preparation of N-sulfonyl phenylalanine
                         dipeptide derivatives and analogs as
                         inhibitors of leukocyte adhesion mediated by
```

VLA-4

INVENTOR(S): Thorsett, Eugene D.; Semko, Christopher M.; Sarantakis, Dimitrios; Pleiss, Michael A.;

Lombardo, Louis John; Kreft, Anthony; Konradi, Andrei W.; Grant, Francine S.; Dressen, Darren

B.; Dappen, Michael S.; Baudy, Reinhardt

Bernhard; Ashwell, Susan

PATENT ASSIGNEE(S): Athena Neurosciences, Inc., USA; American Home

Products Corporation

SOURCE: PCT Int. Appl., 254 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PRIORITY	APPLN. INFO.:			US	1997-920394	ΑI	7007
							1997
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				WO	1998-US15313	W	
							1998
							0730

OTHER SOURCE(S): MARPAT 130:168661

Disclosed are title compds. R1SO2NR2CHR3QCHR5COR6 [R1 = (un) substituted alkyl, (un) substituted aryl, (un) substituted cycloalkyl, (un) substituted heterocyclyl; R2 = H, any group R1; R1R2 may form (un) substituted heterocyclic ring; R3 = H, any group R1; R2R3 may form (un) substituted heterocyclic ring; R5 = (CH2)x-Ar-R5'; R5' = substituted alkylcarbonylamino, alkoxyaryl, aryl, heteroaryl, NR2, alkoxy-NR2, alkenyl, alkynyl, aryloxy, heteroaryloxy, tetrazolyl, etc.; each R = H, any group R1; Ar = (un) substituted aryl or heteroaryl; x = 1-4; Q = C(X)NR7; R7 = H, alkyl; X = O, S; R6 = NH2, (un) substituted alkoxy, (un) substituted cycloalkoxy, succinimidyloxy, adamantylamino, β -cholest-5-en-3-yloxy, NHOY, NH(CH2)pCO2Y, OCH2NR9R10; Y = H, (un)substituted alkyl, (un) substituted aryl; p = 1-8; R9 = (un) substituted CO-aryl; R10 = H, CH2CO2R11, NHSO2Z; R11 = alkyl; Z =(un) substituted alkyl, (un) substituted cycloalkyl, (un) substituted aryl, (un) substituted heteroaryl, (un) substituted heterocyclyl; and pharmaceutically acceptable salts thereof, with provisos] which bind VLA-4 (also referred to as integrin $\alpha 4\beta 1$ and CD49d/CD29). Certain of these compds. also inhibit leukocyte adhesion and, in particular, leukocyte adhesion mediated by VLA-4. Such compds. are useful in the treatment of inflammatory diseases in a mammalian patient, e.g., human, wherein the disease may be, for example, asthma, Alzheimer's disease, atherosclerosis, AIDS dementia, diabetes, inflammatory bowel disease, rheumatoid arthritis, tissue transplantation, tumor metastasis and myocardial ischemia. The compds. can also be administered for the treatment of inflammatory brain diseases such as multiple sclerosis. Thus, BOP-mediated peptide coupling of Ts-Pro-Phe(4-NH2)-OMe (Ts = tosyl) with Boc-Gly-OH, followed by saponification, gave desired title compound Ts-Pro-Phe(4-Boc-Gly-NH)-OH. All prepared compds. have IC50 \leq 15 μM in a VLA-4 binding assay.

IT 220397-47-7P

RN

(preparation of N-sulfonyl phenylalanine dipeptide derivs. and analogs as inhibitors of leukocyte adhesion mediated by VLA-4) 220397-47-7 HCAPLUS

CN L-Tyrosine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-O-[2-oxo-2-[(phenylmethyl)amino]ethyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 220397-52-4P 220398-16-3P 220398-17-4P

(preparation of N-sulfonyl phenylalanine dipeptide derivs. and analogs as inhibitors of leukocyte adhesion mediated by VLA-4)

RN 220397-52-4 HCAPLUS

CN L-Tyrosine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-O-[2-[(1,1-dimethylethyl)amino]-2-oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220398-16-3 HCAPLUS

CN L-Tyrosine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-O-[2-[bis(1-methylethyl)amino]-2-oxoethyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220398-17-4 HCAPLUS

CN L-Tyrosine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-O-[2-[bis(1-methylethyl)amino]-2-oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

220397-67-1P

220397-71-7P

220397-75-1P

220397-79-5P

220397-83-1P

220397-87-5P

220397-91-1P

220397-95-5P

220397-99-9P

220398-04-9P

220397-68-2P

220397-72-8P

220397-76-2P

220397-80-8P

220397-84-2P

220397-88-6P

220397-92-2P

220397-96-6P

220398-00-5P

220398-05-0P

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N(Pr-i)2
                          CO<sub>2</sub>H
IC
     ICM
         C07K005-062
          C07K005-065; C07K005-078; A61K038-05
CC
     34-3 (Amino Acids, Peptides, and Proteins)
     Section cross-reference(s): 1, 15, 63
IT
     Anti-Alzheimer's agents
     Antiasthmatics
       Antidiabetic agents
     Antirheumatic agents
     Encephalitis
     Meningitis
     Psoriasis
     Transplant and Transplantation
        (preparation of N-sulfonyl phenylalanine dipeptide derivs. and
        analogs as inhibitors of leukocyte adhesion mediated by VLA-4)
IT
     220396-90-7P
                    220397-05-7P
                                     220397-07-9P
                                                     220397-21-7P
     220397-25-1P
                    220397-42-2P
                                     220397-43-3P
                                                     220397-45-5P
     220397-47-7P
                    220398-14-1P
                                     220398-29-8P
        (preparation of N-sulfonyl phenylalanine dipeptide derivs. and
        analogs as inhibitors of leukocyte adhesion mediated by VLA-4)
IT
     220396-92-9P
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                                     220396-94-1P
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220398-09-4P 220398-10-7P 220398-11-8P 220398-08-3P 220398-15-2P 220398-16-3P 220398-12-9P 220398-13-0P 220398-19-6P 220398-18-5P 220398-20-9P 220398-17-4P 220398-23-2P 220398-22-1P 220398-24-3P 220398-21-0P 220398-27-6P 220398-28-7P 220398-30-1P 220398-25-4P 220398-33-4P 220398-31-2P 220398-32-3P

(preparation of N-sulfonyl phenylalanine dipeptide derivs. and analogs as inhibitors of leukocyte adhesion mediated by VLA-4)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE

FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L32 ANSWER 31 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1998:693417 HCAPLUS

DOCUMENT NUMBER:

129:343326

TITLE:

Preparation of benzenes as protein kinase C

inhibitors

INVENTOR(S):

Mori, Toyoki; Tominaga, Michiaki; Tabusa,

Fujio; Ei, Kazuyoshi; Nakaya, Kenji; Takemura, Isao; Shinohara, Tomokazu; Tanada, Yoshihisa;

Yamauchi, Takahito; Kitano, Kazuyoshi

PATENT ASSIGNEE(S): SOURCE:

Otsuka Pharmaceutical Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho, 359 pp. CODEN: JKXXAF

Patent

DOCUMENT TYPE: LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10287634	A2	19981027	JP 1997-110527	
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				0411
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PRIORITY APPLN. INFO.:			JP 1997-110527	
				1997
				0411

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OTHER SOURCE(S):

MARPAT 129:343326

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Ι

AB Benzenes I [R1 = 5- to 6-membered (un)substituted unsatd. heterocyclyl having 1-4 N, O, or S; cyano, carboxylalkyl, alkoxycarbonyl, H, Bz, (un)substituted amido, etc.; R2 = (un)substituted Bz, (un)substituted 1,2,3,4-tetrahydroquinolinylcarbonyl, pyridylcarbonyl, (un)substituted

phenoxycarbonyl, etc.; R3 = H, lower alkyl, PhS, (un)substituted lower alkylthio, cycloalkylthio, cyano, etc.; R4 = H, (un)substituted lower alkyl, lower alkoxy, (un)substituted aminoalkylene, (un)substituted aminoalkylenyloxy; R5 = substituted alkenyl, phenylthioureidocarbonyl, pyrimidylaminocarbonylalkoxy, etc.; n = 1-3; the dot line may be double bond] or their salts are prepared I are useful for prevention and treatment of chronic rheumatoid arthritis, systemic lupus erythematosus, atopic dermatitis, heart failure, allergy, multiple sclerosis, tumor, Alzheimer-type dementia, etc. Condensation of 250 mg 2-(benzoylmethyl)pyridine with 300 mg 4-[(2-benzoylmethyl)aminocarbonyl]benzaldehyde in C6H6 for 10 h gave 0.3 g 2-[4-[2-benzoyl-2-(2-pyridyl)vinyl]benzoylamino]benzothiazol e.

IT 215507-40-7P

and appropriate

(preparation of benzenes as protein kinase C inhibitors for treatment of diseases)

RN 215507-40-7 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-[2-(1,2-dioxopropyl)-3,4-dioxo-1-pentenyl]-2-[3-(4-methyl-1-piperazinyl)propyl]phenoxy]-, dihydrochloride (9CI) (CA INDEX NAME)

•2 HCl

TT 202991-38-6P 202991-39-7P 202991-40-0P 202991-41-1P 202991-44-4P 202991-45-5P 202991-46-6P 202991-51-3P 202991-58-0P 202991-60-4P 202991-63-7P 202991-66-0P 202991-67-1P 202991-68-2P 202994-44-3P 215503-91-6P 215504-01-1P 215504-08-8P 215504-09-9P

(preparation of benzenes as protein kinase \bar{C} inhibitors for treatment of diseases)

RN 202991-38-6 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[2-[2-(diethylamino)ethyl]-4-formylphenoxy]-, monohydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} S & \text{NH-C-CH}_2-O \\ \hline & \\ Et_2N-CH_2-CH_2 \end{array}$$

● HCl

RN 202991-39-7 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-[2-(4-methyl-1-piperazinyl)ethyl]phenoxy]-, dihydrochloride (9CI) (CA INDEX NAME)

Me
$$CH_2-CH_2$$
 CH_2-O
 CH_2

●2 HCl

RN 202991-40-0 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-(3-hydroxypropyl)phenoxy]- (9CI) (CA INDEX NAME)

RN 202991-41-1 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-[3-(4-methyl-1-piperazinyl)propyl]phenoxy]- (9CI) (CA INDEX NAME)

Me
$$CH_2$$
) 3 CH_2 C

RN 202991-44-4 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-[3-[4-(4-methyl-1-piperazinyl)-1-piperidinyl]propyl]phenoxy]- (9CI) (CA INDEX NAME)

RN 202991-45-5 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-[3-[4-(4-morpholinyl)-1-piperidinyl]propyl]phenoxy]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 202991-46-6 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[2-[3-[4-(diethylamino)-1-piperidinyl]propyl]-4-formylphenoxy]-, dihydrochloride (9CI) (CA INDEX NAME)

•2 HCl

RN 202991-51-3 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-[3-[(2S)-2-(1-pyrrolidinylmethyl)-1-pyrrolidinyl]propyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 202991-58-0 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-[3-[2-(4-morpholinylmethyl)-4-morpholinyl]propyl]phenoxy]- (9CI) (CA INDEX NAME)

N—
$$CH_2$$
 N— $(CH_2)_3$ CHO

 CH_2 O

 CH_2 O

RN 202991-60-4 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-[3-[2-[(4-methyl-1-piperazinyl)methyl]-4-morpholinyl]propyl]phenoxy]- (9CI) (CA INDEX NAME)

Me
$$N - CH_2 - O$$
 $N - (CH_2)_3$ $CH_2 - O$ $CH_2 - O$

RN 202991-63-7 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-[3-[(2S)-2-(4-morpholinylmethyl)-1-pyrrolidinyl]propyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 202991-66-0 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-[3-[2-[(4-methyl-1-piperazinyl)methyl]-1-pyrrolidinyl]propyl]phenoxy]- (9CI) (CA INDEX NAME)

RN 202991-67-1 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-[3-(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)propyl]phenoxy]- (9CI) (CA INDEX NAME)

RN 202991-68-2 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[2-(4-[1,4'-bipiperidin]-1'-ylbutyl)-4-formylphenoxy]-, trihydrochloride (9CI) (CA INDEX NAME)

●3 HCl

RN 202994-44-3 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-3-[3-(4-methyl-1-piperazinyl)propyl]phenoxy]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{CHO} & \text{Me} \\ & & \text{CH}_2 - \text{O} & \text{CH}_2 - \text{O} \\ & & \text{CH}_2) \text{ 3} - \text{N} \end{array}$$

RN 215503-91-6 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-[3-[2-(4-morpholinylmethyl)-1-pyrrolidinyl]propyl]phenoxy]- (9CI) (CA INDEX NAME)

RN 215504-01-1 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[2-[3-[[2-(dimethylamino)ethyl]methylamino]propyl]-4-formylphenoxy]-, dihydrochloride (9CI) (CA INDEX NAME)

S NH-C-CH₂-O Me (CH₂)
$$_3$$
-N-CH₂-CH₂-NMe₂

•2 HCl

RN 215504-08-8 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-[3-[3-(1-pyrrolidinylmethyl)-1-piperidinyl]propyl]phenoxy]- (9CI) (CA INDEX NAME)

N—
$$CH_2$$
N— $(CH_2)_3$
CH2— O
CH2
 O
NH

RN 215504-09-9 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-formyl-2-[3-[3-(4-morpholinylmethyl)-1-pyrrolidinyl]propyl]phenoxy]- (9CI) (CA INDEX NAME)

N—
$$CH_2$$
— N— $(CH_2)_3$ — CH_2 — O

 CH_2 — O

 CH_2 — O

 CH_2 — O

 CH_2 — O

TT 215507-34-9P 215507-36-1P 215507-39-4P 215507-42-9P 215507-43-0P 215507-52-1P 215507-60-1P 215507-61-2P 215507-65-6P 215507-74-7P 215507-76-9P 215507-78-1P 215507-79-2P 215507-80-5P 215507-81-6P 215507-82-7P 215507-83-8P 215507-85-0P 215507-86-1P 215507-87-2P 215507-88-3P 215507-89-4P

(preparation of benzenes as protein kinase C inhibitors for treatment of diseases)

RN 215507-34-9 HCAPLUS

CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[2-(diethylamino)ethyl]phenoxy]-N-2-benzothiazolyl-, monohydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ Me-C \\ O \\ CH=C-C-Me \\ \end{array}$$

$$\begin{array}{c} CH \\ CH=C-C-Me \\ \end{array}$$

$$\begin{array}{c} CH \\ CH=C-C-Me \\ \end{array}$$

HCl

RN 215507-36-1 HCAPLUS

CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[2-(4-methyl-1-piperazinyl)ethyl]phenoxy]-N-2-benzothiazolyl-, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ \parallel \\ Me-C & O \\ \parallel \\ CH=C-C-Me \end{array}$$

●2 HCl

RN 215507-39-4 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[4-[2-(1,2-dioxopropyl)-3,4-dioxo-1-pentenyl]-2-(3-hydroxypropyl)phenoxy]- (9CI) (CA INDEX NAME)

RN 215507-42-9 HCAPLUS

CN Propanedioic acid, [[4-[2-(2-benzothiazolylamino)-2-oxoethoxy]-3-[3-(4-methyl-1-piperazinyl)propyl]phenyl]methylene]-, diethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

Me
$$\begin{array}{c} O \\ EtO-C \\ O \\ CH=C-C-OEt \\ CH_2-O \\ \hline \\ N \\ N \\ \end{array}$$

•2 HCl

RN 215507-43-0 HCAPLUS

CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[3-[[2-(dimethylamino)ethyl]methylamino]propyl]phenoxy]-N-2-benzothiazolyl-, dihydrochloride (9CI) (CA INDEX NAME)

•2 HCl

RN 215507-52-1 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[2-[3-(4-methyl-1-piperazinyl)propyl]-4-[3-oxo-3-phenyl-2-(1H-1,2,4-triazol-1-yl)-1-propenyl]phenoxy]-, trihydrochloride (9CI) (CA INDEX NAME)

●3 HCl

RN 215507-60-1 HCAPLUS

CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[3-[4-(4-morpholinyl)-1-piperidinyl]propyl]phenoxy]-N-2-benzothiazolyl-, trihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ \parallel \\ Me-C & O \\ \parallel \\ \parallel \\ CH=C-C-Me \end{array}$$

•3 HCl

RN 215507-61-2 HCAPLUS

CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[3-[4-(diethylamino)-1-piperidinyl]propyl]phenoxy]-N-2-benzothiazolyl-, trihydrochloride (9CI) (CA INDEX NAME)

●3 HCl

RN 215507-65-6 HCAPLUS

CN Acetamide, N-2-benzothiazolyl-2-[2-[3-(4-methyl-1-piperazinyl)propyl]-4-[3-oxo-2-(1-oxobutyl)-1-hexenyl]phenoxy]-, trihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ \parallel \\ n\text{-Pr-C O} \\ \parallel \\ \text{CH} = \text{C-C-Pr-n} \\ \text{Me} \\ \begin{array}{c} CH_2 - O \\ \\ C = O \end{array} \end{array}$$

●3 HCl

RN 215507-74-7 HCAPLUS

CN Propanedioic acid, [[4-[2-(2-benzothiazolylamino)-2-oxoethoxy]-3[4-(4-methyl-1-piperazinyl)butyl]phenyl]methylene]-, diethyl
ester, trihydrochloride (9CI) (CA INDEX NAME)

3 HCl

RN 215507-76-9 HCAPLUS
CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[4-(4-methyl-1-piperazinyl)butyl]phenoxy]-N-2-benzothiazolyl-, trihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ \parallel \\ Me-C & O \\ \parallel \\ CH=C-C-Me \\ \end{array}$$

●3 HCl

RN 215507-78-1 HCAPLUS
CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[3-[2-(1-pyrrolidinylmethyl)-1-pyrrolidinyl]propyl]phenoxy]-N-2-benzothiazolyl-, trihydrochloride (9CI) (CA INDEX NAME)

●3 HCl

RN 215507-79-2 HCAPLUS

CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[3-[2-[(methylphenylamino)methyl]-1-pyrrolidinyl]propyl]phenoxy]-N-2-benzothiazolyl-, trihydrochloride (9CI) (CA INDEX NAME)

●3 HCl

RN 215507-80-5 HCAPLUS

CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[3-[4-(4-methyl-1-piperazinyl)-1-piperidinyl]propyl]phenoxy]-N-2-benzothiazolyl-, tetrahydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} 0 \\ \text{Me-C O} \\ \text{CH=C-C-Me} \\ \text{CH} \\ \text{C-C-Me} \\ \text{Me} \\ \\ \text{N} \\ \text{N} \\ \end{array}$$

4 HCl

RN 215507-81-6 HCAPLUS

CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[3-[2-(4-morpholinylmethyl)-1-pyrrolidinyl]propyl]phenoxy]-N-2-benzothiazolyl-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 215507-82-7 HCAPLUS

CN Propanedioic acid, [[4-[2-(2-benzothiazolylamino)-2-oxoethoxy]-3[4-(diethylamino)butyl]phenyl]methylene]-, diethyl ester,
monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 215507-83-8 HCAPLUS

CN Propanedioic acid, [[4-[2-(2-benzothiazolylamino)-2-oxoethoxy]-3-(4-[1,4'-bipiperidin]-1'-ylbutyl)phenyl]methylene]-, diethyl ester, trihydrochloride (9CI) (CA INDEX NAME)

●3 HCl

RN 215507-85-0 HCAPLUS

CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-(4-[1,4'-bipiperidin]-1'-ylbutyl)phenoxy]-N-2-benzothiazolyl-, trihydrochloride (9CI) (CA INDEX NAME)

●3 HCl

RN . 215507-86-1 HCAPLUS

" . A.F " ... - " -

CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[3-(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)propyl]phenoxy]-N-2-benzothiazolyl-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 215507-87-2 HCAPLUS

CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[3-[2-[(4-methyl-1-piperazinyl)methyl]-4-morpholinyl]propyl]phenoxy]-N-2-benzothiazolyl-, tetrahydrochloride (9CI) (CA INDEX NAME)

●4 HCl

RN 215507-88-3 HCAPLUS

CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[3-[2-(1-pyrrolidinylmethyl)-4-morpholinyl]propyl]phenoxy]-N-2-benzothiazolyl-, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
 & O \\
 & Me-C & O \\
 & Me-C & O \\
 & Me-C & O \\
 & CH=C-C-Me
\end{array}$$

$$\begin{array}{c|c}
 & CH=C-C-Me
\end{array}$$

$$\begin{array}{c|c}
 & CH=C-C-Me
\end{array}$$

•2 HCl

RN 215507-89-4 HCAPLUS

CN Acetamide, 2-[4-(2-acetyl-3-oxo-1-butenyl)-2-[4-(diethylamino)butyl]phenoxy]-N-2-benzothiazolyl-, monohydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ Me^{-C} O \\ | \\ | \\ CH = C - C - Me \end{array}$$

$$\begin{array}{c} CH = C - C - Me \\ | \\ C - C - Me \end{array}$$

$$\begin{array}{c} CH = C - C - Me \\ | \\ C - C - Me \end{array}$$

● HCl

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TC
     ICM C07C233-18
         C07C235-80; C07C259-06; C07C325-00; C07D277-44; C07D277-82;
          C07D403-12; C07D417-12; C07D417-14; C07D521-00; A61K031-425
     25-1 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
CC
     Section cross-reference(s): 1, 27, 28, 63
IT
     Allergy inhibitors
     Anti-Alzheimer's agents
     Anti-ischemic agents
     Antiarthritics
       Antidiabetic agents
     Antirheumatic agents
    Antitumor agents
     Autoimmune disease
        (preparation of benzenes as protein kinase C inhibitors for
        treatment of diseases)
IT
     215506-65-3P 215507-40-7P
        (preparation of benzenes as protein kinase C inhibitors for
        treatment of diseases)
IT
     1620-53-7P, 2-(Benzoylmethyl)pyridine
                                              37910-79-5P
                                                             46720-41-6P
                                 58905-21-8P
     52083-24-6P
                   58905-19-4P
                                                58905-26-3P
     60850-42-2P
                   77234-59-4P
                                  88404-27-7P
                                                103962-24-9P
     109261-17-8P
                    111229-33-5P
                                    114252-73-2P
                                                   116991-79-8P
     120067-53-0P
                    133529-69-8P
                                    147729-75-7P
                                                   194209-12-6P
     202991-33-1P
                    202991-34-2P
                                    202991-35-3P
                                                   202991-37-5P
     202991-38-6P 202991-39-7P 202991-40-0P
                                    202991-43-3P
     202991-41-1P
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                    202991-48-8P
                                    202991-49-9P
                                                   202991-50-2P
     202991-47-7P
     202991-51-3P 202991-58-0P 202991-60-4P
     202991-63-7P 202991-66-0P 202991-67-1P
     202991-68-2P
                    202991-69-3P 202994-44-3P
     215503-70-1P
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                                    215503-72-3P
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                                    215503-84-7P
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                                                  -215504-00-0P
     215504-01-1P
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                                                   215504-04-4P
     215504-05-5P
                    215504-06-6P
                                    215504-07-7P 215504-08-8P
     215504-09-9P
                    215504-14-6P
                                    215504-15-7P
        (preparation of benzenes as protein kinase C inhibitors for
        treatment of diseases)
```

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IT
                                                  215507-08-7P
     215507-05-4P
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                    215507-10-1P
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     215507-17-8P
                    215507-18-9P
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     215507-29-2P
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                    215507-37-2P
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                    215507-50-9P
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     215507-61-2P
                                                  215507-64-5P
                                   215507-67-8P
     215507-65-6P
                    215507-66-7P
                                                  215507-68-9P
     215507-69-0P
                    215507-70-3P
                                   215507-71-4P
                                                  215507-72-5P
     215507-73-6P 215507-74-7P
                                 215507-75-8P
                    215507-77-0P 215507-78-1P
     215507-76-9P
     215507-79-2P 215507-80-5P 215507-81-6P
     215507-82-7P 215507-83-8P
                                 215507-84-9P
     215507-85-0P 215507-86-1P 215507-87-2P
     215507-88-3P 215507-89-4P
                                215507-90-7P
        (preparation of benzenes as protein kinase C inhibitors for
        treatment of diseases)
L32 ANSWER 32 OF 38
                      HCAPLUS COPYRIGHT 2006 ACS on STN
```

ACCESSION NUMBER: 1998:169451 HCAPLUS

DOCUMENT NUMBER: 128:230241

Preparation of carbazole derivs. as selective TITLE:

β3 adrenergic agonists

INVENTOR(S): Crowell, Thomas A.; Evrard, Deborah A.; Jones,

> Charles D.; Muehl, Brian S.; Rito, Christopher J.; Shuker, Anthony J.; Thorpe, Andrew J.;

Thrasher, Kenneth J.

PATENT ASSIGNEE(S): Eli Lilly and Company, USA; Crowell, Thomas

> A.; Evrard, Deborah A.; Jones, Charles D.; Muehl, Brian S.; Rito, Christopher J.; Shuker,

Anthony J.; Thorpe, Andrew J.; Thrasher,

Kenneth J.

SOURCE: PCT Int. Appl., 135 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9809625	A1	19980312	WO 1997-US15230	1997 0828

AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW RW: GH, KE, LS, MW, SD, SZ, UG, ZW, BF, BJ, CF, CG, CI, CM,

USHA SHRESTHA EIC 1600 REM 1A64

< - -US 1996-29228P

< - -

WO 1997-US15230

1996 1030

1997

US 1998-68192 A3

--US 2000-610096 A1

2000
0630

--US 2002-120302 A1

< - -

II

0410

OTHER SOURCE(S):

MARPAT 128:230241

GI

AB Title compds. R1X1CH(OH)CH2N(R3)C(R5R6)X2X3R4 I (X1 = OCH2, SCH2, bond; X2 = bond, alkylene; X3 = O, S, bond; R1 = fused heterocycle; R3 = H, alkyl; R4 = (un)substituted heterocycle, naphthyl, etc.; R5 = H, alkyl; R6 = H, alkyl CO-O-alkyl; R5-R6 = cycloalkyl; R6-X2 = cycloalkyl; etc.) are prepared for selective β3 receptor agonists which are useful in the treatment of Type II diabetes and obesity, comprising administering to mammal. The title compound II was prepared from (2S)-(+)-4-(oxiranylmethoxy)-9H-carbazole and 2-(4-(2-amino-2-methylpropyl)phenoxy)-5-pyridinecarbonitrile which was prepared from 2-fluoropyridine and 4-(2-amino-2-methylpropyl)phenol.

IT 204593-17-9P

(preparation of carbazole derivs. as adrenergic agonists)

RN 204593-17-9 HCAPLUS

CN Acetamide, 2-[4-[2-[[3-(9H-carbazol-4-yloxy)-2-hydroxypropyl]amino]-2-methylpropyl]phenoxy]-N-methoxy-N-methyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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OMe Ne Me Me
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A61K031-40
IC
     ICM
     ICS A61K031-44; C07D209-82; C07D209-88; C07D401-12
CC
     27-11 (Heterocyclic Compounds (One Hetero Atom))
     Section cross-reference(s): 1, 63
IT
     Antidiabetic agents
        (preparation of carbazole derivs. as)
                                                   204592-57-4P
IT
     95094-00-1P
                   204592-55-2P
                                   204592-56-3P
                                                    204592-62-1P
     204592-58-5P
                    204592-59-6P
                                    204592-61-0P
     204592-63-2P
                    204592-64-3P
                                    204592-65-4P
     204592-67-6P
                    204592-68-7P
                                    204592-69-8P
```

204592-66-5P 204592-70-1P 204592-71-2P 204592-72-3P 204592-73-4P 204592-74-5P 204592-75-6P 204592-76-7P 204592-77-8P 204592-78-9P 204592-80-3P 204592-81-4P 204592-82-5P 204592-79-0P 204592-84-7P 204592-85-8P 204592-86-9P 204592-83-6P 204592-88-1P 204592-89-2P 204592-90-5P 204592-87-0P 204592-91-6P 204592-92-7P 204592-93-8P 204592-94-9P 204592-95-0P 204592-96-1P 204592-97-2P 204592-98-3P 204593-00-0P 204593-01-1P 204593-02-2P 204592-99-4P 204593-04-4P 204593-05-5P 204593-06-6P 204593-03-3P 204593-08-8P 204593-09-9P 204593-10-2P 204593~07-7P 204593-14-6P 204593-11-3P 204593-12-4P 204593-13-5P 204593-15-7P 204593-16-8P 204593-17-9P 204593-18-0P 204593-22-6P 204593-19-1P 204593-20-4P 204593-21-5P 204593-24-8P 204593-26-0P 204593-23-7P 204593-25-9P 204593-28-2P 204593-29-3P 204593-30-6P 204593-27-1P 204593-32-8P 204593-33-9P 204593-34-0P 204593-31-7P 204593-36-2P 204593-37-3P 204593-38-4P 204593-35-1P 204773-65-9P 204637-55-8P

(preparation of carbazole derivs. as adrenergic agonists)

REFERENCE COUNT:

1 THERE ARE 1 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

IN THE RE FORMAT

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L32 ANSWER 33 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
```

ACCESSION NUMBER:

1986:5623 HCAPLUS

DOCUMENT NUMBER:

104:5623

TITLE:

Tertiary phenethylamines

INVENTOR(S):

Berge, John; Hindley, Richard Mark

PATENT ASSIGNEE(S):

Beecham Group PLC, UK

SOURCE:

Eur. Pat. Appl., 44 pp.

CODEN: EPXXDW

DOCUMENT TYPE: LANGUAGE: Patent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 142102	A2	19850522	EP 1984-113089	1984 1030
EP 142102 EP 142102	B1		<	
R: BE, CH, DE, AU 8434925			NL, SE AU 1984-34925	1984 1102
	B2 A2			
			<	1984 1102
ZA 8408570	Α	19850828		1984 1102
ES 537359	A 1	19851216	< ES 1984-537359	1984 1102
CA 1246083	A1	19881206	< CA 1984-466978	1984 1102
ES 545776	A1	19860116	< ES 1985-545776	1985 0731
ES 545777	A1	19860601	< ES 1985-545777	1985
US 4803293	A	19890207	< US 1987-17002	0731 1987 0218
IORITY APPLN. INFO.:			< GB 1983-29490 A	
			< GB 1983-34294 A	1983
			< US 1984-667757 A	1222 1 1984 1102

OTHER SOURCE(S):

MARPAT 104:5623

GI

$$R^{2}$$

*
CHR³CH₂N (CHR⁴R⁵) *
CHR⁶ (CH₂) n

R⁷

I

Phenethyl amines I [R1 = H, halo, CF3; R2 = H, halo; R3 = OH, alkoxy, amino; R4 = H, alkyl; R5 = H, (un)substituted alkyl, alkenyl, alkynyl; R6 = H, Me; R7 = (esters and amides of) CO2H, carboxyalkyloxy, (un)substituted alkoxy; the asterisks indicate potential optically active centers; n = 1, 2], useful as antihyperglycemic and antiobesity agents, were prepared Thus, (RR,SS)-3-ClC6H4C6H4CH(OH)NR8CHMeC6H4(OCH2CO2Me)-4 (II; R8 = H) was N-alkylated with BrCH2CH2OH to give II (R8 = CH2CH2OH) (III). At 22.9 mg/kg orally, III increased the energy expenditure of mice by 167% during a 3 h period. At 0.5 μmol/kg orally in mice, III reduced blood glucose by 52% during a 2 h period following administration of glucose s.c.

IT 99386-66-0P 99386-67-1P

(preparation and alkylation of, with bromoacetophenone)

RN 99386-66-0 HCAPLUS

CN Acetamide, N-methyl-2-[4-[2-(methylamino)propyl]phenoxy]- (9CI) (CA INDEX NAME)

RN 99386-67-1 HCAPLUS

CN Acetamide, N-methyl-2-[4-[2-(methylamino)propyl]phenoxy]-, monohydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NHMe} \\ | \\ \text{CH}_2 - \text{CH} - \text{Me} \\ \\ \text{MeNH} - \text{C} - \text{CH}_2 - \text{O} \end{array}$$

● HCl

IT 99386-50-2P 99404-59-8P

(preparation and hypoglycemic and antiobesity activity of)

RN 99386-50-2 HCAPLUS

CN Acetamide, 2-[4-[2-[(2-hydroxy-2-phenylethyl)methylamino]propyl]ph enoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 99404-59-8 HCAPLUS

CN Acetamide, 2-[4-[2-[(2-hydroxy-2-phenylethyl)methylamino]propyl]ph enoxy]-N-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \text{Ph} \\ & | & | \\ \text{N-} & \text{CH}_2\text{--} & \text{CH--} & \text{OH} \\ \\ \text{CH}_2\text{--} & \text{CH--} & \text{Me} \\ \\ \text{MeNH--} & \text{C--} & \text{CH}_2\text{--} & \text{OH} \\ \\ \end{array}$$

● HCl

IT 99386-65-9P

(preparation and reduction of)

RN 99386-65-9 HCAPLUS

CN Acetamide, N-methyl-2-[4-[2-[methyl(2-oxo-2-phenylethyl)amino]propyl]phenoxy]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \text{O} \\ | & \text{||} \\ \text{N-CH}_2\text{-C-Ph} \\ | & \text{||} \\ \text{CH}_2\text{-CH-Me} \\ \\ \text{MeNH-C-CH}_2\text{-O} \end{array}$$

IC ICM C07C101-12

ICS C07C101-18; C07C101-30; C07C103-78; C07C099-00; C07D295-12

CC 25-4 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) Section cross-reference(s): 1

IT Antidiabetics and Hypoglycemics

```
Appetite depressants and Antiobesity agents (tertiary phenthylamine derivs.)
```

IT 99386-66-0P 99386-67-1P

(preparation and alkylation of, with bromoacetophenone)
IT 99386-28-4P 99386-32-0P 99386-33-1P 99386-34-2P
99386-35-3P 99386-36-4P 99386-37-5P 99386-38-6P
99386-39-7P 99386-40-0P 99386-41-1P 99386-42-2P

99386-43-3P 99386-44-4P 99386-49-9P 99386-48-8P 99386-53-5P 99386-50-2P 99386-51-3P 99386-52-4P 99386-57-9P 99386-54-6P 99386-55-7P 99386-56-8P 99386-58-0P 99386-59-1P 99386-60-4P 99386-61-5P 99386-63-7P 99386-64-8P 99386-68-2P 99386-69-3P

99386-70-6P 99386-71-7P 99386-72-8P 99386-73-9P 99397-34-9P **99404-59-8P** 99404-60-1P

(preparation and hypoglycemic and antiobesity activity of) IT 99386-65-9P

(preparation and reduction of)

L32 ANSWER 34 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1985:523489 HCAPLUS

DOCUMENT NUMBER: 103:123489

TITLE: Morpholine derivatives

INVENTOR(S): Cantello, Barrie Christian Charles

PATENT ASSIGNEE(S): Beecham Group PLC, UK SOURCE: Eur. Pat. Appl., 36 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

Pi	ATENT NO.	KIND	DATE	AP	PLICATION NO.	DATE
E	P 140359	A1	19850508	EP	1984-113014	1984
						1029
	- 440050		10000105		<	
E	P 140359 R: CH, DE, FR,					
U	S 4607033	Α	19860819	US	1984-666818	
		•			•	1984
						1031
					<	
J.	P 60112778	A2	19850619	JР	1984-231130	
						1984
						1101
					<	
		B4			,	
U	\$ 4665072	Α	19870512	US	1986-865348	
						1986
						0521
					<	
U	S 4783460	A	19881108	US	1987-26893	
						1987
						0317
					<	
PRIORI	TY APPLN. INFO.:			GB	1983-29247 A	
						1983
						1102

<--

OTHER SOURCE(S):

MARPAT 103:123489

Ι

AB Morpholines and perhydrooxazepines I [n = 2, 3; R = Ph, halophenyl, (trifluoromethyl)phenyl, 2-benzofuryl; R1 = H, Me; m = 1, 2; R2 = CO2H, esterified CO2H, carbamoyl, carboxyalkoxy, esterified carboxyalkoxy, carbamoylalkoxy, aminoalkoxy, hydroxyalkoxy, alkoxyalkoxy], which were prepared, exhibited antidiabetic activity. 2-Phenylmorpholine was stirred with 4-(MeCOCH2)C6H4OCH2CO2Me and NaB(CN)H3 in MeOH, and the mixture was worked up to give I (n = 2, R = Ph, R1 = Me, m = 1, R2 = OCH2CO2Me).

IT 98235-44-0P 98235-45-1P 98235-56-4P 98235-60-0P 98235-61-1P

(preparation and antidiabetic activity of)

RN 98235-44-0 HCAPLUS

CN Acetamide, N-methyl-2-[4-[2-(2-phenyl-4-morpholinyl)propyl]phenoxy]-, monohydrochloride, (R*,R*)- (9CI) (CA INDEX NAME)

RN 98235-45-1 HCAPLUS

CN Acetamide, N-methyl-2-[4-[2-(2-phenyl-4-morpholinyl)propyl]phenoxy]-, monohydrochloride, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 98235-56-4 HCAPLUS

CN Acetamide, N-methyl-2-[4-[2-[3-(trifluoromethyl)phenyl]-4-morpholinyl]propyl]phenoxy]-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

RN 98235-60-0 HCAPLUS

CN Acetamide, 2-[4-[2-[2-(3-chlorophenyl)-4-morpholinyl]propyl]phenoxy]-N-methyl-, dihydrochloride, (R*,R*)-(9CI) (CA INDEX NAME)

•2 HCl

Relative stereochemistry.

•2 HCl

98235-47-3 HCAPLUS RN

CN Acetamide, N-methyl-2-[4-[2-(2-phenyl-4-

morpholinyl)propyl]phenoxy]-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

```
TC
     ICM C07D265-30
     ICS C07D267-10; C07D413-04; A61K031-535; A61K031-55
CC
     28-13 (Heterocyclic Compounds (More Than One Hetero Atom))
ST
     morpholine phenylisopropyl prepn antidiabetic;
     phenylisopropylmorpholine prepn antidiabetic
     Antidiabetics and Hypoglycemics
IT
IT
     98235-40-6P
                   98235-41-7P 98235-44-0P
     98235-45-1P
                   98235-48-4P
                                 98235-49-5P
                                                98235-52-0P
                   98235-58-6P
     98235-56-4P
                                 98235-59-7P
     98235-60-0P 98235-61-1P
                               98235-62-2P
     98235-63-3P
                   98235-66-6P
                                 98235-67-7P
                                                98235-72-4P
        (preparation and antidiabetic activity of)
TΤ
     98235-42-8P
                   98235-43-9P 98235-46-2P
     98235-47-3P
                   98235-50-8P
                                 98235-51-9P
                                                98235-54-2P
     98235-64-4P
                   98235-65-5P
                                 98235-69-9P
                                                98235-70-2P
     98235-73-5P
        (preparation of)
```

L32 ANSWER 35 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1985:504687 HCAPLUS

DOCUMENT NUMBER: 103:104687

TITLE: 2-Phenylethylamine derivatives

PATENT ASSIGNEE(S): Beecham Group PLC, UK

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 60067450	A2	19850417	JP 1984-170108	1984 0816
	EP 139921	A 1	19850508	< EP 1984-109391	1984
	EP 139921	B1	19870325	<	0808
	R: BE, CH, DE, AU 8431944				1984 0815
	ZA 8406331	Α	19850731	< ZA 1984-6331	1984
	US 4692465	Α	19870908	< US 1984-640850	1984
	ES 535226	A1	19851101	< ES 1984-535226	1984
PRIO	RITY APPLN. INFO.:			< GB 1983-22137 A	1983
				< GB 1983-34293 A	0817 1983
				<	1222

OTHER SOURCE(S):

MARPAT 103:104687

HOZOCHRCH2NHCHR1CH2 R2

Phenylethylamine derivs. (I; R = aryl, 2-benzofuryl; R1 = H, Me; R2 = HOCH2CH2O, MeNHCH2CH2O, MeO2CCH2O, H2NCOCH2O; etc.; Z = alkylene), effective hypoglycemics at 2.5-25.0 μ mol/kg in mice

s.c., were prepared Thus, a mixture of 4.4 g II, 4.3 g III, and 50 mg Pt oxide in MeOH was treated with H, passed through kieselguhr, distilled in vacuo, and treated with HCl-Et2O to give a mixture of 56:44 diastereomeric I.HCl (R = 3-ClC6H4, R1 = Me, R2 = MeO2CCH2O).

IT 97967-50-5P

(preparation and hypoglycemic activity of)

RN 97967-50-5 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-(2-hydroxyethoxy)ethyl]amino]propyl]phenoxy]-N-methyl-, monohydrochloride, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

HCl

IT 97967-62-9P 97967-72-1P 97967-73-2P (preparation of)

RN 97967-62-9 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-(2-hydroxyethoxy)ethyl]amino]propyl]phenoxy]-N-methyl-, monohydrochloride, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 97967-72-1 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-(2-hydroxyethoxy)ethyl]amino]propyl]phenoxy]-N-methyl-, (R*,R*)-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 97967-73-2 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-(2-hydroxyethoxy)ethyl]amino]propyl]phenoxy]-N-methyl-, (R*,S*)-(9CI) (CA INDEX NAME)

Relative stereochemistry.

IC ICM C07C093-04 ICS A61K031-135; A61K031-165; A61K031-195; A61K031-215; A61K031-34; C07C093-14; C07D295-08; C07D307-81

CC 25-4 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) Section cross-reference(s): 1

IT Antidiabetics and Hypoglycemics (phenylethylamine derivs.)

IT 97967-49-2P **97967-50-5P** 97967-51-6P 97967-52-7P 97967-53-8P 97967-54-9P 97967-55-0P 97967-56-1P 97967-57-2P

(preparation and hypoglycemic activity of)

97967-31-2P 97967-32-3P 97967-58-3P TT 97967-30-1P 97967-59-4P 97967-60-7P 97967-61-8P 97967-62-9P 97967-63-0P 97967-64-1P 97967-65-2P 97967-66-3P 97967-70-9P 97967-67-4P 97967-68-5P 97967-69-6P 97967-71-0P 97967-72-1P 97967-73-2P 97967-76-5P 97967-77-6P 97967-74-3P 97967-75-4P 97967-78-7P 97967-79-8P 97967-80-1P 97967-81-2P 97985-45-0P 97967-82-3P (preparation of)

L32 ANSWER 36 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1985:148865 HCAPLUS

DOCUMENT NUMBER: 102:148865

TITLE: Pharmaceutically active 2-phenylethylamine

derivatives

INVENTOR(S): Cantello, Barrie Christian Charles; Hindley,

, 0419

Richard Mark

PATENT ASSIGNEE(S):

Beecham Group PLC, UK

SOURCE:

PCT Int. Appl., 26 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-,			
WO 8404091	A1	19841025	WO 1984-GB101	1984
			<	0327
W: GB, JP, US RW: CH, DE, FR,				
EP 140922	A1	19850515	EP 1984-901385	1984 0327
			<	
R: CH, DE, FR, PRIORITY APPLN. INFO.:	GB, LI	, NL	GB 1983-10556 A	1983

<--

OTHER SOURCE(S):

MARPAT 102:148865

GI

AB Amines I (R = H, halo, CF3; R1 = H, Me; R2 = ω-carboxyalkoxy, ω-hydroxy-, ω-alkoxy-, or ω-aminoalkoxy), which were prepared and showed antidiabetic activity. The reductive N-alkylation of 3-ClC6H4CH2CH2NH2 by 4-(MeCOCH2)C6H4OCH2CO2Me gave I (R = 3-Cl, R1 = Me, R2 = OCH2CO2Me).

IT 95825-83-5P

(preparation and antidiabetic activity of)

RN 95825-83-5 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)ethyl]amino]propyl]phenoxy]-N-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{C1} & \text{Me} \\ | \\ | \\ \text{CH}_2\text{--} \text{CH}_2\text{---} \text{NH---} \text{CH}_2\text{----} \\ | \\ | \\ \text{O---} \text{CH}_2\text{-----} \text{C----} \text{NHMe} \end{array}$$

HCl

IT 95825-84-6P

(preparation and reduction of)

RN 95825-84-6 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)ethyl]amino]propyl]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{C1} & \text{Me} \\ | \\ | \\ \text{CH}_2\text{--} \text{CH}_2\text{---} \text{NH}\text{---} \text{CH}_2 \\ | \\ | \\ | \\ \text{O}\text{---} \text{CH}_2\text{----} \text{C}\text{----} \text{NHMe} \end{array}$$

IC C07C093-14; C07C103-34; A61K031-13; A61K031-19; A61K031-22; A61K031-16

CC 25-4 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 1

ST phenethylamine phenylisopropyl prepn antidiabetic; antidiabetic phenylisopropylphenethylamine prepn

IT Antidiabetics and Hypoglycemics

(N-(phenylisopropyl)phenethylamines)

IT 95825-81-3P 95825-83-5P 95825-85-7P

(preparation and antidiabetic activity of)

IT 95825-84-6P

(preparation and reduction of)

L32 ANSWER 37 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1984:406799 HCAPLUS

DOCUMENT NUMBER: 101:6799

TITLE: 2-Aminoethyl ether derivatives, and their

pharmaceutical compositions

INVENTOR(S): Cantello, Barrie Christian Charles

PATENT ASSIGNEE(S): Beecham Group PLC, UK SOURCE: Eur. Pat. Appl., 87 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 99707	A1	19840201	EP 1983-303983	1993

						0708
•				<		
EP 99707	B1	19861210				
R: BE, CH, DE	, FR,	GB, IT, LI,	NL, SE	E		
AU 8316826		19840223				
						1983
						0714
				<		
AU 557743	В2	19870108		•		
ZA 8305126	A		7.0	1983-5126		
ZA 0303120	А	17040027	בה	1703 7120		1983
						0714
						0/14
	_		***	<		
US 4629737	Α	19861216	US	1983-513869		
						1983
•						0714
				<		
CA 1253870	A1	19890509	CA	1983-432465		
	•					1983
						0714
				<		
JP 59031740	A2	19840220	JP	1983-128035		
						1983
						0715
				<		
ES 524174	Δ1	19841116	ES	1983-524174		
10 321171	***	13011110	20	1703 3211.1		1983
						0715
				<		0713
PRIORITY APPLN. INFO.:			CD	1982-20645	А	
PRIORITY APPLIN. INFO.:			GD	1902-20045	A	1982
						0716
				<	_	
			GB	1982-28753	Α	
						1982
						1007
				<		
			GB	1982-35672	Α	
						1982
						1215

OTHER SOURCE(S):

/.i . .

MARPAT 101:6799

GI

RCH (OR¹) CH₂NHCHR² (CH₂)
$$_{n}$$

AB Amines I [R = Ph, alkyl-, halo-, or (trifluoromethyl)phenyl, PhOCH2, 2-benzofuryl; R1 = alkyl, phenylalkyl; R2 = H, Me; n = 1, 2; R3 = CO2H, carboxyalkyl, carboxyalkenyl, hydroxyalkyl, hydroxyalkenyl, aminoalkyl, aminoalkenyl, alkoxy, alkylthio, alkylamino, hydroxyalkoxy, hydroxyalkylthio, hydroxyalkylamino, aminoalkoxy, aminoalkylthio, aminoalkylamino, ZZ1CO2H (Z = O, S, NH; Z1 = alkylene, alkenylene)] were prepared, and they exhibited antidiabetic activity. A mixture of 4-

(MeCOCH2)C6H4OCH2CO2Me and 3-ClC6H4CH(OMe)CH2NH2 in PhMe was refluxed 2 h, and the mixture was treated with Pt and H2 to give I (R = 3-ClC6H4, R1 = R2 = Me, n = 1, R3 = 4-OCH2CO2Me). Some I also showed antiinflammatory activity and inhibited blood platelet aggregation.

ΙT 90469-03-7P 90469-11-7P 90469-12-8P 90469-17-3P 90469-18-4P 90469-30-0P 90469-31-1P 90469-32-2P 90469-33-3P 90469-42-4P 90469-43-5P 90469-50-4P 90469-51-5P 90469-66-2P 90469-67-3P 90469-70-8P 90469-71-9P 90469-93-5P 90469-94-6P 90470-10-3P 90470-11-4P 90470-31-8P 90470-34-1P 90470-35-2P 90470-40-9P 90470-41-0P 90470-42-1P 90470-44-3P 90470-45-4P (preparation and antidiabetic activity of) 90469-03-7 HCAPLUS RNCN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2methoxyethyl]amino]propyl]phenoxy]-N-methyl-, monohydrochloride

● HCl

Relative stereochemistry.

(9CI) (CA INDEX NAME)

● HCl

Relative stereochemistry.

● HCl

RN 90469-17-3 HCAPLUS

CN Acetamide, 2-[4-[2-[(2-methoxy-2-phenylethyl)amino]propyl]phenoxy]-N-methyl-, monohydrochloride, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 90469-18-4 HCAPLUS

CN Acetamide, 2-[4-[2-[(2-methoxy-2-phenylethyl)amino]propyl]phenoxy]-N-methyl-, monohydrochloride, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

HCl

RN 90469-30-0 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-bromophenyl)-2-methoxyethyl]amino]propyl]phenoxy]-N-methyl-, monohydrochloride, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 90469-31-1 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-bromophenyl)-2-methoxyethyl]amino]propyl]phenoxy]-N-methyl-, monohydrochloride, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 90469-32-2 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-ethoxyethyl]amino]propyl]phenoxy]-N-methyl-, monohydrochloride, (R*,R*)- (9CI) (CA INDEX NAME)

HCl

RN 90469-33-3 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-ethoxyethyl]amino]propyl]phenoxy]-N-methyl-, monohydrochloride, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

HCl

RN 90469-42-4 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-methoxyethyl]amino]propyl]phenoxy]-N,N-dimethyl-, monohydrochloride, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 90469-43-5 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-methoxyethyl]amino]propyl]phenoxy]-N,N-dimethyl-, monohydrochloride, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

$$\begin{array}{c} \text{OMe} \\ \text{H} \\ \text{N} \\ \text{S} \\ \text{O} \\ \text{C1} \\ \end{array}$$

● HCl

RN 90469-50-4 HCAPLUS

CN Acetamide, 2-[4-[3-[[2-(3-chlorophenyl)-2-methoxyethyl]amino]butyl]phenoxy]-N-methyl-, monohydrochloride, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 90469-51-5 HCAPLUS

CN Acetamide, 2-[4-[3-[[2-(3-chlorophenyl)-2-methoxyethyl]amino]butyl]phenoxy]-N-methyl-, monohydrochloride, (R*,S*)- (9CI) (CA INDEX NAME)

● HCl

Relative stereochemistry.

●2 HCl

●2 HCl

RN 90469-70-8 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-(1-methylethoxy)ethyl]amino]propyl]phenoxy]-N-methyl-, dihydrochloride, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

•2 HCl

RN 90469-71-9 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-(1-methylethoxy)ethyl]amino]propyl]phenoxy]-N-methyl-, dihydrochloride, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

●2 HCl

G 33/817 JG1

RN 90469-93-5 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(2-benzofuranyl)-2-methoxyethyl]amino]propyl]phenoxy]-N-methyl-, dihydrochloride, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

•2 HCl

RN 90469-94-6 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(2-benzofuranyl)-2-methoxyethyl]amino]propyl]phenoxy]-N-methyl-, dihydrochloride, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

•2 HCl

RN 90470-10-3 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-butoxy-2-(3-chlorophenyl)ethyl]amino]propyl]phenoxy]-N-methyl-, monohydrochloride, (R*,R*)- (9CI) (CA INDEX NAME)

● HCl

RN 90470-11-4 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-butoxy-2-(3-chlorophenyl)ethyl]amino]propyl]phenoxy]-N-methyl-, monohydrochloride, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

HCl

RN 90470-31-8 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-methoxyethyl]amino]ethyl]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{C1} & \text{OMe} \\ & \text{CH-CH}_2\text{-NH-CH}_2\text{-CH}_2 \\ \hline & \text{O-CH}_2\text{-C-NHMe} \end{array}$$

RN 90470-34-1 HCAPLUS

CN Acetamide, 2-[4-[2-[(2-methoxy-3-phenoxypropyl)amino]propyl]phenox y]-N-methyl-, monohydrochloride, (R*,R*)- (9CI) (CA INDEX NAME)

HCl

RN 90470-35-2 HCAPLUS

CN Acetamide, 2-[4-[2-[(2-methoxy-3-phenoxypropyl)amino]propyl]phenox y]-N-methyl-, monohydrochloride, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 90470-40-9 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(2,3-difluorophenyl)-2-methoxyethyl]amino]propyl]phenoxy]-N-methyl-, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 90470-41-0 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(2,3-difluorophenyl)-2-methoxyethyl]amino]propyl]phenoxy]-N-methyl-, (R*,S*)- (9CI) (CA INDEX NAME)

RN 90470-42-1 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(2-fluorophenyl)-2-methoxyethyl]amino]propyl]phenoxy]-N-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{OMe} & \text{Me} \\ \hline \\ \text{CH-} \text{CH-} \text{CH}_2 - \text{NH-} \text{CH-} \text{CH}_2 \\ \hline \\ \text{F} \end{array}$$

● HCl

RN 90470-44-3 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-methoxy-2-(3-methylphenyl)ethyl]amino]propy l]phenoxy]-N-methyl-, monohydrochloride, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

HCl

RN 90470-45-4 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-methoxy-2-(3-methylphenyl)ethyl]amino]propy l]phenoxy]-N-methyl-, monohydrochloride, (R*,S*)- (9CI) (CA INDEX NAME)

HCl

IT 90469-24-2P 90469-25-3P

(preparation and hydride reduction of)

RN 90469-24-2 HCAPLUS

CN Acetamide, 2-[4-[2-[(2-methoxy-2-phenylethyl)amino]propyl]phenoxy]-N-methyl-, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 90469-25-3 HCAPLUS

CN Acetamide, 2-[4-[2-[(2-methoxy-2-phenylethyl)amino]propyl]phenoxy]-N-methyl-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

IT 90469-09-3P 90469-10-6P 90469-36-6P 90469-37-7P 90469-40-2P 90469-41-3P

90469-55-9P 90470-75-0P 90470-76-1P

90486-20-7P

(preparation and reduction of, by borane)

RN 90469-09-3 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-methoxyethyl]amino]propyl]phenoxy]-N-methyl-, (R*,R*)- (9CI) (CA INDEX NAME)

RN 90469-10-6 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-methoxyethyl]amino]propyl]phenoxy]-N-methyl-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 90469-36-6 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-bromophenyl)-2-methoxyethyl]amino]propyl]phenoxy]-N-methyl-, (R*,R*)- (9CI) (CAINDEX NAME)

Relative stereochemistry.

RN 90469-37-7 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-bromophenyl)-2-methoxyethyl]amino]propyl]phenoxy]-N-methyl-, (R*,S*)- (9CI) (CF INDEX NAME)

RN 90469-40-2 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-ethoxyethyl]amino]propyl]phenoxy]-N-methyl-, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 90469-41-3 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-ethoxyethyl]amino]propyl]phenoxy]-N-methyl-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 90469-55-9 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-methoxyethyl]amino]propyl]phenoxy]-N,N-dimethyl- (9CI) (CA INDEX NAME)

RN 90470-75-0 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chloropheny1)-2-propoxyethyl]amino]propyl]phenoxy]-N-methyl-, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 90470-76-1 HCAPLUS

CN Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-propoxyethyl]amino]propyl]phenoxy]-N-methyl-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 90486-20-7 HCAPLUS

CN Benzeneacetamide, α -methoxy-N-[1-methyl-2-[4-[2-(methylamino)-2-oxoethoxy]phenyl]ethyl]-, (R*,R*)- (9CI) (CAINDEX NAME)

IT

90469-04-8P

90469-25-3P

90469-44-6P

```
(preparation of)
RN
     90469-04-8 HCAPLUS
     Acetamide, 2-[4-[2-[[2-(3-chlorophenyl)-2-
     methoxyethyl]amino]propyl]phenoxy]-N-methyl- (9CI)
                                                            (CA INDEX
     NAME)
            OMe
                        Me
              -сн<sub>2</sub>- ин- сн- сн<sub>2</sub>-
                                                C-NHMe
IC
     C07C093-04; C07C093-10; C07C093-14; C07C103-34; C07C103-178;
     C07C101-42; C07C101-16; C07C149-42; A61K031-16
CC
     25-4 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
     Section cross-reference(s): 1
ST
     phenethylamine phenylisopropyl prepn hypoglycemic;
     phenylisopropylphenethylamine prepn hypoglycemic; antiinflammatory
     phenylisopropylphenethylamine prepn; antidiabetic
     phenylisopropylphenethylamine prepn; blood platelet
     phenylisopropylphenethylamine prepn
IT
     Antidiabetics and Hypoglycemics
     Inflammation inhibitors and Antiarthritics
        (N-(phenylalkyl)phenethylamines)
ТТ
     90468-92-1P
                                                 90468-96-5P
                   90468-92-1P
                                  90468-93-2P
     90468-97-6P
                   90469-01-5P
                                  90469-02-6P 90469-03-7P
     90469-07-1P
                   90469-08-2P 90469-11-7P
     90469-12-8P
                   90469-13-9P
                                  90469-14-0P
                                                 90469-15-1P
     90469-16-2P 90469-17-3P 90469-18-4P
     90469-19-5P
                   90469-20-8P
                                  90469-22-0P
                                                 90469-23-1P
     90469-30-0P 90469-31-1P 90469-32-2P
     90469-33-3P
                   90469-34-4P
                                                 90469-38-8P
                                  90469-35-5P
     90469-39-9P 90469-42-4P 90469-43-5P
     90469-46-8P
                   90469-47-9P 90469-50-4P
     90469-51-5P
                   90469-54-8P
                                  90469-56-0P
                                                 90469-57-1P
     90469-60-6P
                   90469-61-7P
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                   90470-01-2P
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        (preparation and antidiabetic activity of)
TT
     13031-13-5P
                   33224-88-3P
                                  33225-01-3P 90469-24-2P
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90470-54-5P

90470-53-4P

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90486-20-7P

(preparation and reduction of, by borane)

IT 90468-99-8P 90469-00-4P **90469-04-8P** 90469-26-4P 90469-48-0P 90469-49-1P 90470-03-4P 90469-27-5P 90470-04-5P

(preparation of)

L32 ANSWER 38 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1981:461726 HCAPLUS

DOCUMENT NUMBER:

95:61726

TITLE:

Ethanamine derivatives and their use in

pharmaceutical compositions

INVENTOR(S):

Ainsworth, Anthony Trevor; Smith, David Glynn

PATENT ASSIGNEE(S):

Beecham Group Ltd., UK

SOURCE: Eur. Pat. Appl., 46 pp. CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

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EP 23385	A1	19810204	EP 1980-301927	1980 0609
EP 23385 R: AT, BE, CH, US 4338333	DE, FR	, GB, IT,		
AT 1994	E	19821215	< AT 1980-301927	1980 0609
CA 1150297	A1	19830719	< CA 1980-353754	1980 0609 1980
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			1	<		
ES 499604	A1	19820201	ES	1981-499604		
						1981
						0219
				<		
PRIORITY APPLN. INFO.:			GB	1979-21038	Α	
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				<		
			EP	1980-301927	Α	
ı						1980
						0609
				/		

OTHER SOURCE(S):

MARPAT 95:61726

GI

$$\texttt{MeO}_2\texttt{CCH}_2\texttt{O} - \texttt{CH}_2\texttt{CHMeNHCH}_2\texttt{CH (OH)} - \texttt{OH}$$

AB HOCHRCH2NHCR1R2XX1OX2CO2H (R = optionally-substituted Ph; R1 = H, F, Cl, Me, OMe, OH; R2 = H, Me; X = bond, alkylene; X1 = phenylene, oxyphenylene; X2 = alkylene) were prepared Thus, 4-MeO2CCH2OC6H4CHO was treated with EtNO2 to give 4-MeO2CCH2OC6H4CH:CHMeNO2 which was hydrogenated to 4-MeO2CCH2OC6H4CH2CMe:NOH. Hydrolysis of the oxime gave 4-MeO2CCH2OC6H4CH2COMe which was treated with 4,3-HO(HOCH2)C6H3CH(OH)CH2NH2 and hydrogenated to give I as a mixture of diastereoisomers. At 11 mg/kg orally in rats daily 28 days I decreased the lipid content from 18.6 to 12.9 g.

IT 78069-35-9P 78069-36-0P

(preparation and pharmacol. activity of)

RN 78069-35-9 HCAPLUS

CN Acetamide, 2-[4-[2-[(2-hydroxy-2-phenylethyl)amino]propyl]phenoxy]-N-methyl-, (R*,R*)- (9CI) (CA INDEX NAME)

RN 78069-36-0 HCAPLUS

CN Acetamide, 2-[4-[2-[(2-hydroxy-2-phenylethyl)amino]propyl]phenoxy]-N-methyl-, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

IC C07C093-14; C07C103-178; C07C103-34; A61K031-19

CC 25-4 (Noncondensed Aromatic Compounds)

ST phenylethanolamine phenylalkyl; obesity phenylethanolamine;

antidiabetic phenylethanolamine

IT Antidiabetics and Hypoglycemics

(phenylethanolamine derivs.)

IT 78069-20-2P 78069-21-3P 78069-23-5P 78069-29-1P

78069-30-4P 78069-31-5P 78069-32-6P 78069-33-7P

78069-34-8P **78069-35-9P 78069-36-0P**

86615-96-5P

(preparation and pharmacol. activity of)